

VOL. 68

NO. 3

APR 13 1945

L. L. N. C.
COMMERCIAL

textile bulletin

APRIL 1 • 1945

What is left of Germany's cotton manufacturing industry now that parts of it have been overrun by Allied forces? See Editor David Clark's article starting on Page 17.

From Cards to Looms



Protects Cotton From "Oil Spot" Damage



That's the story in a nutshell. NON-FLUID OIL stays in bearings, until entirely consumed—instead of dripping and leaking like liquid oil. It not only prevents oil spots, but it goes from 3 to 5 times as far as liquid oils, reducing oil and application costs. Used successfully in 7 out of 10 mills.

Write for Descriptive Bulletins

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Any Size is Practical
in SONOCO CORK COTS
because of their exclusive construction

The pre-fabricated SONOCO Cork Cot is so made to withstand the strains of application and stresses of constant running without impairing the natural drafting qualities of the cork. It is the only Cork Cot made that is reinforced against squeeze in application and elongation in running.



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SONOCO PRODUCTS COMPANY

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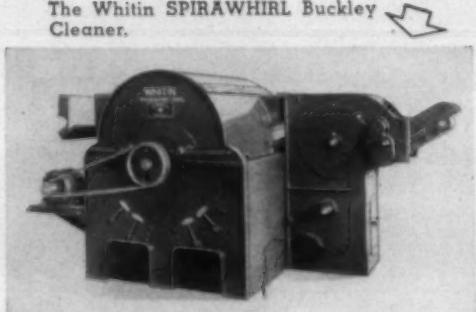
To

COTTON MILL MEN

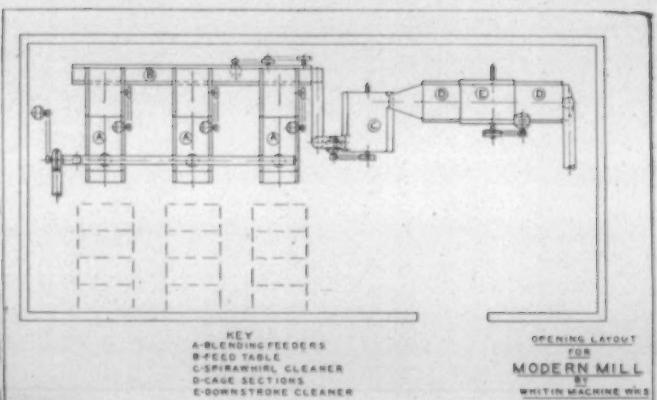
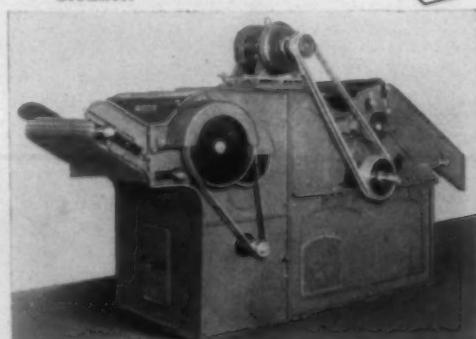
COTTON MILLS
When the time comes to
turn "BLUEPRINTS" into "MILLS"



Recent mill installation of new BLENDING FEEDERS with group fan arrangement.



The Whitin DOWNSTROKE Buckley Cleanner.





WHITIN

offers

Improved Equipment for
OPENING, CLEANING and BLENDING

The fact that careful and more efficient Opening, Cleaning, and Blending results in greatly improved manufacturing conditions throughout subsequent operations is well-known. Nevertheless, many mills are still performing these most important operations with inadequate machinery.

For that new mill, tomorrow — or that revised Opening Room layout, we recommend:

1. The Whitin Blending Feeder: (In groups of three to ten)
 - (a) Produces mathematically accurate blends.
 - (b) Effectively opens bale cotton for subsequent operations.
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 2. The Whitin Spirawhirl Buckley Cleaner:
 - (a) Handles all lengths of staple without fiber damage.
 - (b) Blooms and dusts the cotton with maximum efficiency.
 - (c) Produces cleaner cotton without curl or stringiness.
 3. The Whitin Downstroke Buckley Cleaner:
 - (a) Exceptionally effective Opening and Cleaning.
 - (b) Particularly selective waste removal — retaining maximum of good fibers in product.
 - (c) High production with maximum efficiency.

We also build Opening equipment, specifically designed, for Staple Rayon and Blends.

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SPINNING TAPE

YOU CAN PROVE IT!

Mills that have run scientifically-conducted comparative tests with CUTLER tape and ordinary spinning tape have seen demonstrated clearly the advantages claimed for the CUTLER (patented) product. These advantages are:

1. Substantial Power Saving.
2. Increased Spindle Speed.
3. Longer Life.

No other spinning tape possesses the superior qualities of this original power-saving CUTLER spinning tape.

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Creel Weights
(a complete line)

Harness
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(a complete line)

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QUALITY LOOM HARNESS EQUIPMENT
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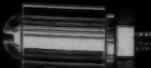
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(a complete line)

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HIGHER SPEEDS...MORE PRODUCTION with AMCO Evaporative Cooling

To the accepted advantages of controlled humidification AMCO Evaporative Cooling adds the desirable benefits that come from reduced temperatures.

After thorough examination and comparison the management of more than fifty mills has selected this clean, ductless system as the most logical and efficient means of controlling temperature and comfort twelve months of the year.

You too, may be facing the troubles which accompany greater heat caused by higher machine speeds. There is something you can do about it. Call in an AMCO engineer . . . let him show you how this simpler cooling system will help you to put your mill in a favorable position to meet the coming peacetime high speed, high production competition.



Reduces excessive temperature and holds relative humidity at point best suited to fibre and process.

Assures evener yarn counts and increases breaking strength.

Speeds production in high friction (heat) areas.

No cumbersome ducts to become clogged and obstruct light.

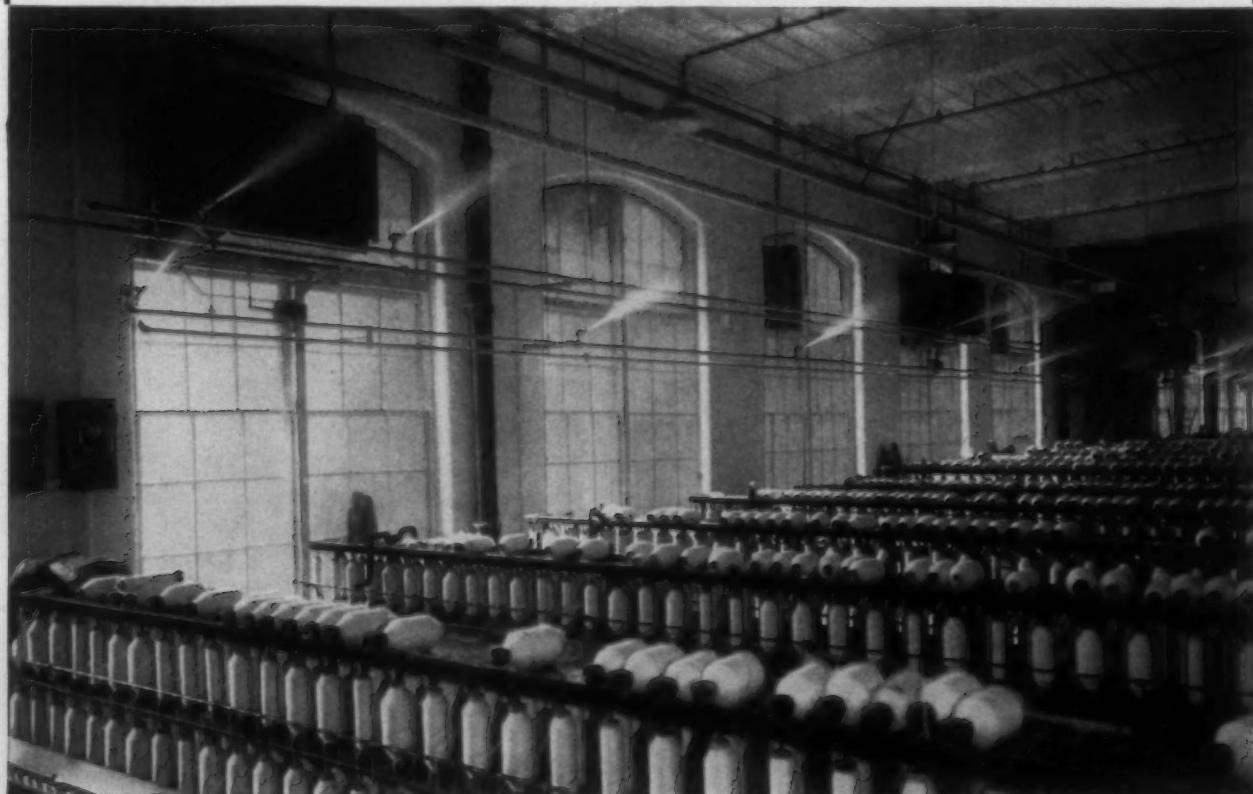
Easy to install—minimum disruption.

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AMCO Evaporative Cooling utilizes your present humidification system.

Increases workers' comfort.



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The Bright Idea
for sparkling colors
and fabrics...



● This versatile detergent and penetrating agent offers many advantages that make it popular with experienced textile men.

As an afterwash for prints, a very small quantity brightens colors and gives sparkle to the material. It has no adverse effect on the most delicate shades. Recommended as a soaping and dyeing assistant, particularly with acetate colors.

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Oratol L-48 is a sulphonated amide product for use in neutral, acid or alkaline solutions. It is not

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GATES *Synthetic Rubber* V-Belts

— are giving **BETTER SERVICE**
Than Any V-Belts Ever Made of NATURAL RUBBER!

To meet the unprecedented severity of combat service on U. S. Army tanks, tractors and self-propelled big guns, Gates has developed and built synthetic rubber V-belts to far higher service standards than were ever required of pre-war, natural rubber V-belts!

- The importance of this fact to industrial V-belt users is this:

Every improvement developed by Gates for these Army V-belts has also been added, day by day, to the quality of the standard Gates Vulco Ropes which have been delivered to you.

In the case of many other products, you must wait until after the war to get the benefit of war-time improvements. But victory depends upon production—and production depends upon V-belts which drive the producing machines. That is why Gates has been able to pass on to you immediately, in your Standard Gates Vulco Ropes, every V-belt improvement which Gates specialized research has developed for use in the Army's motorized equipment.

In addition, where V-belts of special construction are required your Gates Rubber Engineer can supply a Gates V-belt that is precisely engineered to meet your special needs. Whenever you have a drive problem or a V-belt problem, just pick up your telephone directory and look under the heading "Gates Rubber." The Gates Rubber Engineer will bring right into your plant the full benefits of every advance in V-belt construction that Gates specialized research has developed.



—and one of these
5 GATES V-belts
will meet any
Special need
you may have.

Rayon Cord
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The Mark of
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The first in a series discussing the performance requirements of loom leathers:

REPEATED PULLING like this →



calls for a JACK STRAP like this →



The Problem: to pull down the harness one to two times each second, exerting effort against the resistance of the other harness which it has to *lift*.

Service Requirements: high tensile strength to withstand the repeated strain of being pulled each time the harness cam forces the treadle down . . . maximum resistance to flexing wear at the points where the strap passes through the stirrup and through the jack stick . . . high tear strength to avoid trouble at the buckle.

The Solution: Graton & Knight's "Hairitan" leather. This special "Hairitan" tannage develops tensile strength averaging over 6500 lbs. Each lot is tested on the Olsen Machine to make certain it has this de-

sired tensile strength. It has extreme toughness coupled with flexibility. Fibre structure is tight and strong to resist tearing.

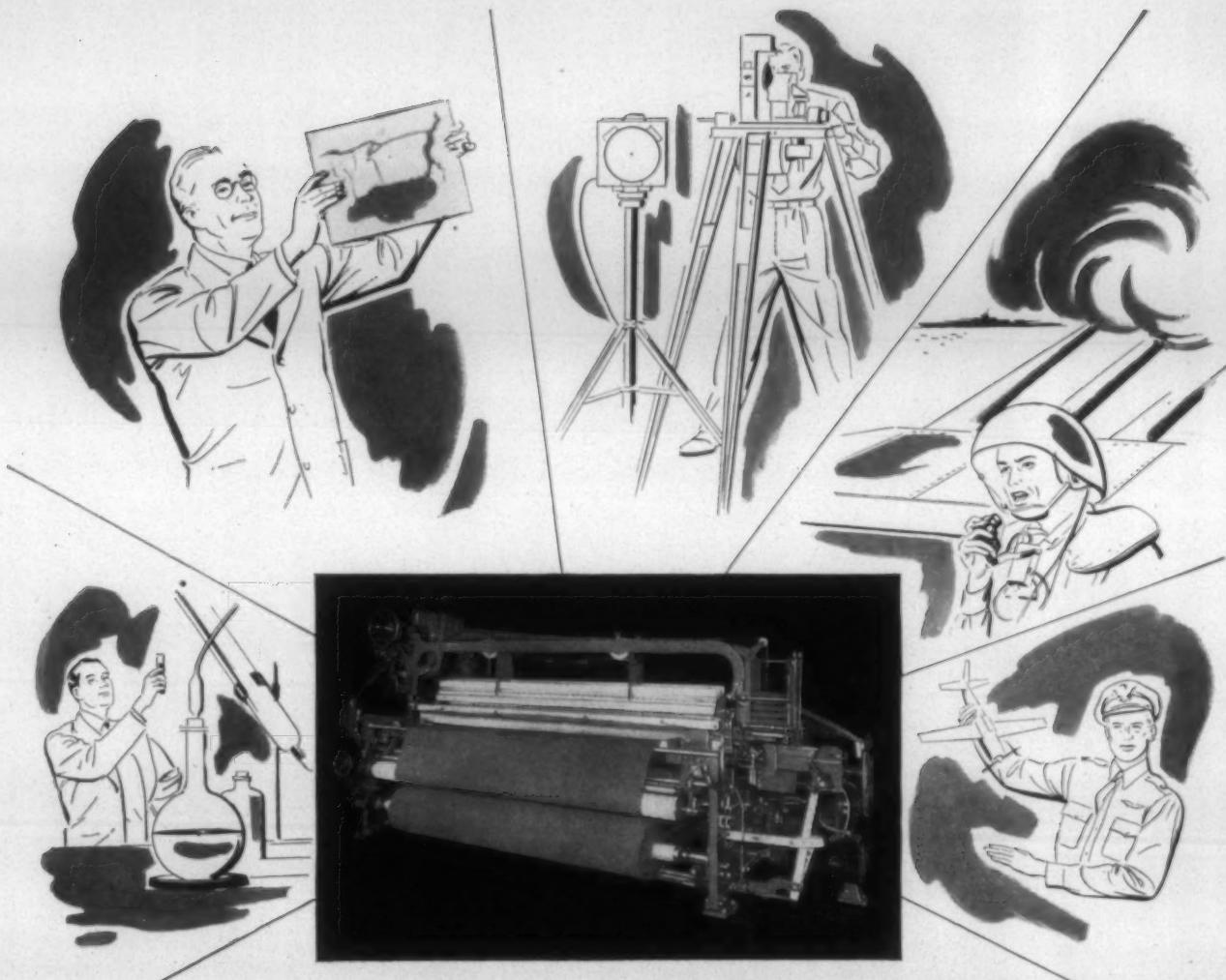
"Hairitan" is acknowledged the equal of any "European-type" hair-on leather.

All products in Graton & Knight's ORANGE LINE of "Hairitan" loom leathers — pickers, check straps and other straps — are identified by orange color on the flesh side. This signifies *one quality control from hide to loom* — by the world's largest manufacturer of industrial leathers. Write for catalog on Graton & Knight textile leathers. Graton & Knight, 328 Franklin Street, Worcester 4, Massachusetts.



ORANGE LINE LOOM LEATHERS

A complete line manufactured under one control from green hide to loom. Supplied by the leading distributors in the textile industry. Look under "Graton & Knight" in "Belting" section of Classified Telephone Directory or THOMAS' REGISTER. See complete catalog in TEXTILE WORLD YEARBOOK.



How Many Sciences are focused on the work of Improving C&K Looms?

In research, three fundamentals are so obvious that they're often overlooked. First, define the problem. Next, ascertain what unknown factors need to be known. Then find the tools to work with. Foremost among these is *intelligently evaluated experience* which gives an accurate bearing, based on known quantities, to guide explorations into unknown fields.

It takes this experience to select and correctly employ the right tools for use in any particular *new direction* of research, from among all the modern methods, materials and equipment available. And C&K has enlisted the benefit of the most advanced thought in many fields of science: Electronics, mechanics, hydraulics, metallurgy, chemistry, physics, pneumatics, radiography, aerodynamics, optics . . . and many others, including high-speed photography in which C&K

has made special developments which will be shown in these pages in the future.

Many of these tools have been chosen on the basis of speed, for many parts and motions on C&K Looms operate within time-limits equalled by few other modern mechanisms. In fact, long experience with projectile-like speeds is one of the chief reasons why C&K has *five times* received the Army-Navy "E". And this sound experience, implemented with the newest developments in many varied scientific fields, is the reason why you, Mr. Mill Owner, can depend upon it that C&K Looms of the future will be improved as they have been in the past . . . not as complete, overnight packaged miracles . . . but as continuously developing mechanisms to which new ideas will be added as they are proved.

Crompton & Knowles Loom Works

WORCESTER 1, MASSACHUSETTS, U. S. A.
PHILADELPHIA, PA. • CHARLOTTE, N. C. • ALLENTOWN, PA.



between Today's War Weapons . . .
and their New Uses in Tomorrow's Looms



Fabric Courtesy International Looms, Inc. Yarns Courtesy Franklin Process Co.

GOOD YARN, OR NONE AT ALL

GILLEATHER definitely stops bad spinning. That may sound like a big order but here's what we mean. Leather substitutes, no matter how you rebuff them, will soon go back to spinning bad yarn. Rolls covered with GILLEATHER spin good yarn right up to the last and when they're through they're through. No second life, no troubles and, most important, *no bad yarn*. GILL LEATHER COMPANY, Salem, Mass.

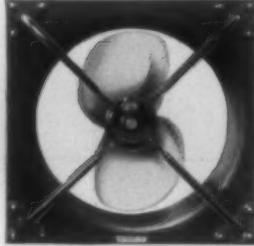
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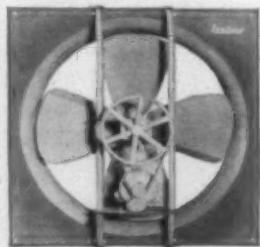
GILLEATHER

CALF AND SHEEPSKIN FOR TOP ROLLS

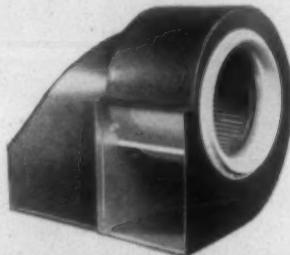
MUCH DRAFT - AIR CONDITIONING
AMERICAN BLOWER
MOTOR DRIVES - DUST COLLECTORS



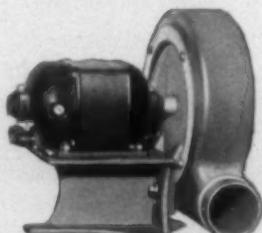
Ventura Ventilating Fan with direct connected 2-speed fully enclosed motor.



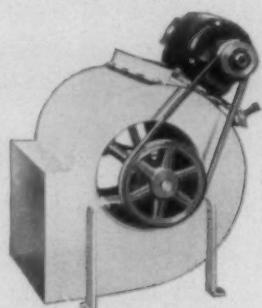
Ventura Ventilating Fan with V-belt drive.



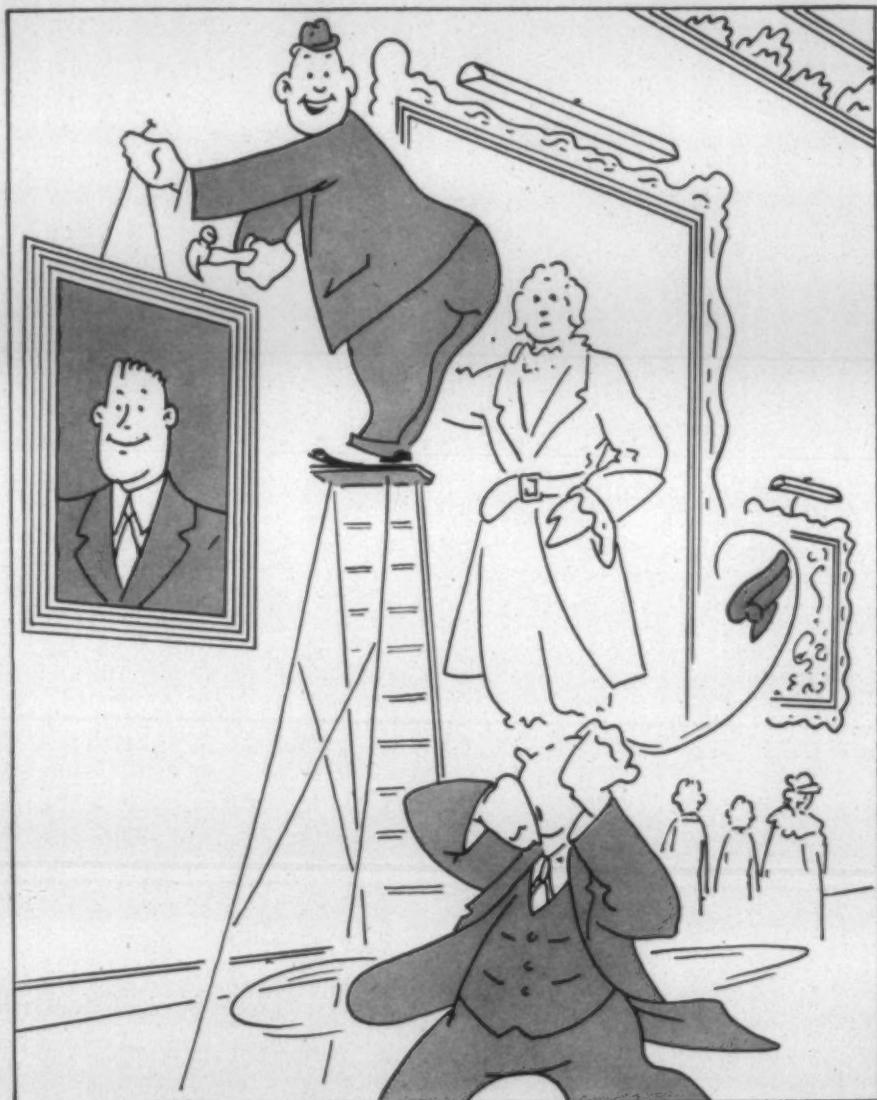
ABC Utility Set for ventiling with a duct system.



Type P Pressure Blowers.



ACF Fan with V-belt drive.
Other fans to meet every air handling need.



"There," he said, "is where it belongs!"

"I FEEL so good about our new Ventilating System," writes a nationally known manufacturer, "I wouldn't hesitate to recommend American Blower equipment to anyone."

"THE CONTRACTOR who installed it did a swell job, too. When a man does a thorough job these days, you ought to put his picture in the museum along with the old masters."

"THERE is where it belongs. I feel like placing our contractor's picture there myself."

TIP-OFF—You can get a swell job on any problem of ventilating, air handling and exhausting from your local Ventilating Contractor or Dealer.

AND YOU will be sure of getting complete satisfaction if you ask for American Blower Equipment.

AMERICAN BLOWER

AMERICAN BLOWER CORPORATION, DETROIT, MICH.

CANADIAN SIROCCO COMPANY, LTD., WINDSOR, ONT.

Division of AMERICAN RADIATOR & Standard Sanitary CORPORATION

Lambeth Products

"BILTRITE" Canvas Lugstraps

"Blood will tell," they say. Therefore, you can expect thoroughly dependable performance from "Biltrite" Canvas Lugstraps (our newest offering) for they have illustrious ancestors in other Lambeth products.

Some of these products have been on the market for more than 50 years and are in greater demand today than ever.

Come to Lambeth for year-in, year-out dependability.



BILTRITE CANVAS LUG STRAP

This new product is an outstanding example of Lambeth quality. It's built up and twisted to save wear and tear. The plow has no chance to cut or break from the tension it receives. Length 8 ft. to 20 ft.

LAMBETH ROPE CORPORATION

New Bedford, Mass., Southern Office, Johnston Bldg., Charlotte, N. C.
Mfrs. of Spinning Tape, Mule Rope and Banding. Also Sales Agents
for Lambeth Products Corp., Antrim, N. H., Makers of Canvas Lug Straps

STOP COLOR BLEEDING

with* CULOFIX

No matter where the trouble occurs — whether while the fabric is batched up after dyeing, or in the finishing bath—Culofix will improve water fastness.

Culofix used as an after treatment following the dyeing operation is especially valuable for preserving crisp detail and contrast in prints of rayons, cottons and mixtures.

It has been used with complete success for hosiery

where mixed fibres are present.

Culofix not only improves water fastness of direct colors but also imparts a very desirable soft, full finish thus eliminating an extra finishing operation.

If fastness to water is essential to your direct color dyeings, write for complete data. Our technical staff is at your service without obligation.

*Reg. U.S. Pat. Off.

ARKANSAS CO., INC.

Manufacturers of Industrial Chemicals For Over 40 Years.

NEWARK

NEW JERSEY

Most Vital Post-War Plan

THE most vital post-war plan—the one which would affect every freedom-loving American—is a plan that would restore to the people as quickly as possible all the guaranteed liberties of the Constitution that they have had taken from them in the name of "the necessity for prosecuting the war."

This is a plan which should now be occupying the thought, the concern of every true citizen of our country. Every true citizen should now be making up his mind that, just as soon as the time comes, he is going to speak out strongly, demanding of those who represent him in the state and national governments that they get busy at the job of restoring to the people their democratic form of government.

Get busy at the job of jacking governmental bureaus. Get busy at the job of doing away with dictatorial powers of those in high places. Get busy at the job of removing those Federal agencies now infringing on states' rights.

To be sure promises have been made by those in absolute authority that all constitutional rights would be returned to the people just as soon as the war shall have been won. But, as everyone knows, from experiences of recent years, promises in Washington are like the proverbial pie-crust, easily broken—and arbitrarily so. There are many indications that those now in control of our government believe that the American people have become so sufficiently indoctrinated with wartime regimentation, so sufficiently practiced in the art of goose-stepping, that they will be willing to continue "following the leader."

Just recently, however, the bureaucratic element in Washington had a severe check given it by the Senate when this body refused to entrust the starry-eyed Wallace with the great lending powers of our government, when they refused to confirm the nomination of the socialistic Williams for the post of rural electrification administrator. Such actions on the part of the Senate deserve commendation.

But the people must be constantly on the alert, beginning now, determined to see to it that their voice be heard in Washington, that their voice be made manifest through their national

representatives, that their wills be incorporated into actions—actions which will restore to them their lost liberties, actions which will give back to them "a government of the people, for the people and by the people."

If such a post-war plan as this be carried out, we need have no fear about our war veterans being taken care of, about our war workers finding jobs, about free enterprise being able to manage the business affairs of our nation. Give us back our Constitution, give the government back to the people from which it is supposed to be derived, and the people, once again free, will prove themselves equal to all the tasks which lie ahead. Otherwise we shall witness another "winning the war but losing the peace."—*Chattahoochee Valley Times*, Lanett, Ala.

Will Freedom Survive?

THE astounding thing about the home front is the fact that excepting the families of service men, it lives normally and has no conception of the horrors of war. Communications from Washington on the price of trivial items fill columns in the press. Social security planning, "full" employment and dizzy talk of a contented post-war world, with all the worries assumed by a benevolent government, arise from the American scene like a haze from a swamp. Clear, unqualified thought on the subject of personal freedom is almost totally lacking in Washington.

As the war moves on, country after country sees the spectre of oppression and government by small cliques loom larger and darken over the world. The United States is no exception to this trend. Much of the post-war planning is a crazy mixture of individual initiative and bureaucratic paternalism. The conflict between those who believe in state socialism and would have the government take over basic industries, and those who believe (as we do) in the superiority of privately owned enterprise, has led to rash promises—many to fool the people and which can only be accepted as pure ballyhoo.

Millions expect government to furnish them jobs, to guarantee peacetime prices, to protect them from the insecurity of competition. They should remember that the more they ask of gov-

ernment, the less freedom they will have. If government ends by owning most of industry and employing most of the people as well as regulating the lives of the remainder, freedom will become a mockery.

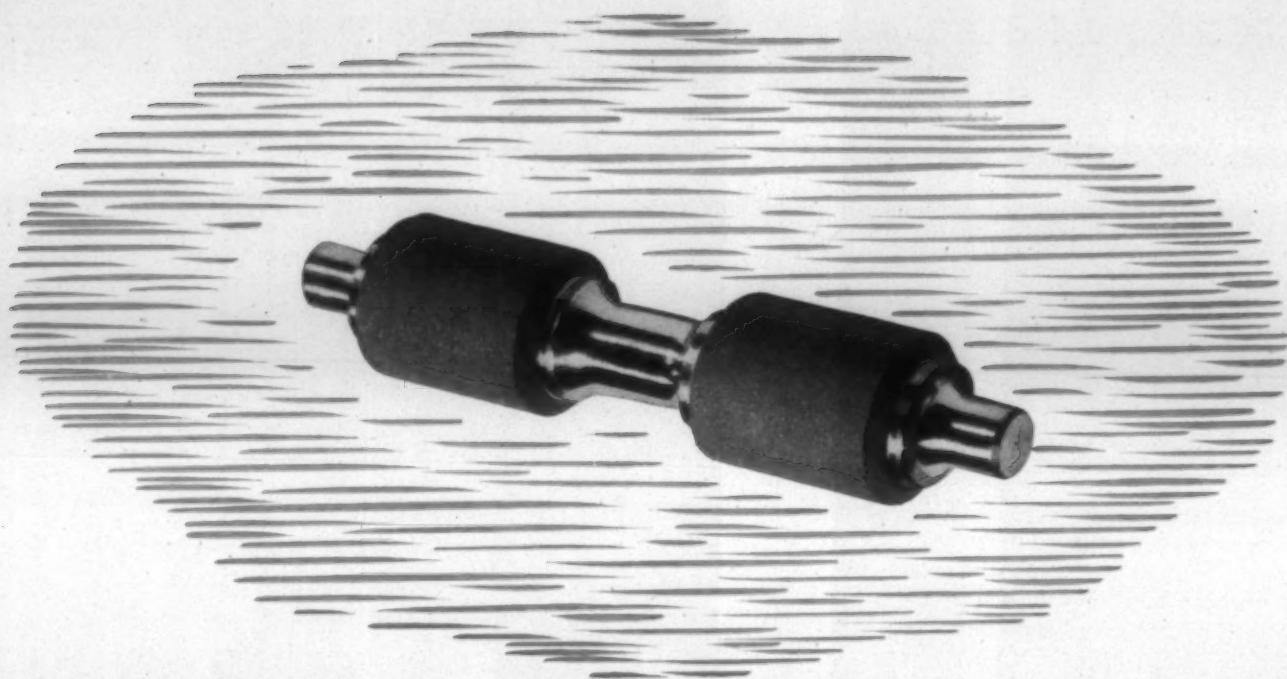
Too many hands are outstretched crying "gimme"—the idea of something for nothing, encouraged by government. Our people could lose everything of material value as the price of victory in this war and still have a bright future. However, let too much government destroy the freedom and hope of the individual to build again and there is no future. The right of ownership is more important than ownership itself. — *Clinton (S. C.) Chronicle*.

\$64 Question

AS bit by bit the long prayed for new world comes out of the smoke of battle, we ask ourselves—What will the people be like? A new world can be planned on paper—but you can only build it out of people. What has been done by the men in combat has been the slow and painful winning of the war to give the world a fresh start and the people must take it up from there. The treaties that will be signed will not be worth the paper they are written on unless there is created in the hearts of the people the capacity to care genuinely for one another to live and work together in harmony and for the common good.

We can do this in our homes, communities, churches and organizations. We must better our relationships with other people whether they are in our own families, the worker next to us in the mill, our neighbor next door or on the other side of the town. We have special problems right in our own community and neighborhood. We should think about them and decide where we can take hold of and correct them.

We hear at times the statement that ours is so small a community that what we do matters but little to outside communities. Don't fool yourself into believing that! Our country is made up largely of small communities and their attitudes toward what the new world must be like will largely determine what the future holds for our people. — *Joanna News*, Goldville, S. C.



This improved synthetic cot gives you LONGER SPINNING LIFE

Here's what we mean when we say that Armstrong's Cork-and-Synthetic-Rubber Accotex Cots give you "longer spinning life"!

These Accotex Cots are made from a specially compounded synthetic rubber containing cork. The cork content helps Accotex Cots to retain their good grip longer than any "straight" synthetic cot. It is this combination that gives you good drafting over a longer period... eliminates frequent rebuffing.

In many mills, Accotex Cots have been in continuous operation—without rebuffing—for more than two years. Yet they are still producing high quality yarn!

But Accotex Cots offer you *more* than long spinning life. For the other plus advantages, check over the list on the right. If you would like to prove these advantages in your own mill, get in touch with your Armstrong representative. He'll arrange for you to make your own mill tests. Or write Armstrong Cork Company, Textile Products Dept., 8204 Arch St., Lancaster, Pa.



PLUS

1. **REDUCED EYEBROWING**—The resistance to slicking minimizes eye-browning.
2. **REDUCED LAPPING**—Accotex Cots have little affinity for textile fibers and are non-sweating.
3. **GOOD START-UP**—Accotex Cots are non-thermoplastic and resist flattening.
4. **SOLVENT RESISTANCE**—Accotex Cots are not affected by oil, water, dyes, or textile solvents.
5. **SEAMLESS CONSTRUCTION**—Accotex Cots have no seams—can't break open in service.
6. **QUICK ASSEMBLY** — Accotex Cots are ready glued.

ARMSTRONG'S ACCOTEX COTS

CORK COTS • ACCOTEX APRONS



textile bulletin



Vol. 68

April 1, 1945

No. 3

POST-WAR COTTON SPINDLES

By DAVID CLARK, Editor

WITH the war in Europe nearing its end and the war in Japan coming closer to its final stages, the cotton textile industry of the United States should take stock of future competition as represented by the spindles of other countries.

Listed below are the cotton spindles in the United States as reported by the U. S. Census Bureau and those of other countries in the world as reported by the Federation of Master Cotton Spindles under date of July 1, 1939. The war has made it impossible to compile accurate statistics since that date.

Country	1945
United States:	
North	4,886,000
South	17,408,000
Other states	807,000
United States total	23,101,000
Great Britain	36,322,000
Continent:	
Germany	12,191,000
Russia	10,350,000
France	9,794,000
Italy	5,324,000
Spain	2,000,000
Czecho-Slovakia	1,558,000
Belgium	1,984,000
Poland	1,764,000
Switzerland	1,249,000
Holland	1,241,000
Austria	776,000
Sweden	561,000
Portugal	444,000
Hungary	317,000
Finland	310,000
Yugoslavia	196,000
Denmark	103,000
Norway	43,000
Continent total	50,205,000
Orient:	
Japan	11,502,000
India	10,054,000
China	4,450,000
Orient total	26,006,000

Elsewhere:	
Canada	1,159,000
Mexico	884,000
Brazil	2,765,000
Other countries	3,204,000
Elsewhere total	8,012,000
World total	143,764,000

Figure for Germany is as of July 31, 1934, figure for Italy is as of July 31, 1935, figure for China is as of Jan. 31, 1937, and figure for Russia is as of Jan. 31, 1938. The figures for Spain and China were estimates made in 1939, because even then there were no accurate statistics available.

It is very doubtful that England has today more than 30,000,000 cotton spindles in place and upon the basis of two mule spindles rating as one ring spindle, it is doubtful that England now has as many as 25,000,000 spindles.

The Germans were so certain that they were going to capture England that they carefully refrained as much as possible from dropping bombs on cotton mills. In Huddersfield, where the writer visited and saw the location of the cotton mills, German bombers destroyed the water works system but did not touch a large cotton mill within two blocks of the water works. In spite of their care, some English cotton mills were seriously damaged but their greatest shrinkage came from moving machinery out of cotton mills in order to use the buildings for the manufacture of munitions and other war materials. Much of that machinery is antiquated and a considerable portion will never again be installed.

Japan had 11,502,000 cotton spindles in 1939 but it is reported that a considerable portion of them has been moved to Manchuria and may escape the bombs which are now being dropped upon the home islands.

The question of most interest today is what has happened or will happen to the cotton spindles in Germany. German cotton manufacturing is more scattered than the English, Swiss, Italian, or East Indian, but there are three well-defined centers—the Saxon, the Alsatian, and the Westphalian (see map on page 19, with main and lesser cotton manufacturing centers indicated by ringed and solid dots, respectively). This map was drawn in 1905 by W. A. Graham Clark, a brother of the writer, who as commercial agent of the U. S. Department of Commerce was investigat-

ing and reporting upon the textile industry in foreign countries. Mr. Clark, who is now textile expert for the U. S. Tariff Commission, visited and reported upon 47 countries, including Japan and Germany.

At the time the map was drawn Germany had about 8,500,000 cotton spindles against about 12,000,000 prior to this war. We are informed that the growth in spindles has been to a large extent in the cotton manufacturing areas already established and for the purpose of studying the possible destruction of German cotton mills the map will serve well.

One section lies north of the mountains of northern Bohemia, and consists of the Kingdom of Saxony and the Upper Franconia Province of Bavaria. In regard to general cotton manufacturing, including not only spinning and weaving, but knitting, embroidering, lace making, cotton waste manufacture, artificial flowers, etc., it is the most important section of Germany. It contains some 4,000,000 spindles, and its most important towns are Hof, Bayreuth and Bamberg, in Upper Franconia, and Chemnitz, Mittweida, Plauen, Plaue, Werdau, Crimmitschau, Zittau and Zwickau, in Saxony. Towns in this area which had more than 100,000 spindles in 1905 were:

	Spindles	Looms
Hof	325,000	3,169
Bamberg	125,000	2,186
Mittweida	162,000	1,761
Plaue	105,000	...
Chemnitz	165,000	1,897
Crimmitschau	143,000	...
Bayreuth	141,000	759
Wesdau	304,000	...
Leipzig	210,000	...

Lower Bavaria, which likewise has not yet been reached by the Allies, has the towns of Augsburg (which in 1905 had 510,000 spindles and 9,600 looms), Kempton (with

106,000 spindles and 2,500 looms), and several smaller textile cities.

The extreme southwest corner of Germany, between the cotton manufacturing districts of East France, Switzerland and the Austrian Vorarlberg, contains some 4,500,000 spindles, unequally distributed between Alsace, Baden, Wurttemberg and Bavarian Swabia.

The Allies have, according to our information, captured the Alsace-Lorraine area, which includes:

	Spindles	Looms
Mulhausen	550,000	9,000
Gebweiler	210,000	8,500
Logelbach	150,000	3,300

The Wurttemberg area, which contains several cotton mill towns of medium spindleage, has not yet been captured.

Another textile manufacturing section lies in the northwest corners of the Prussian Rhine and Westphalian provinces, and has 3,000,000 spindles. The main textile centers there are:

	Spindles	Looms
Gronau	525,000	1,200
Rheine	425,000	5,500
Bocholt	200,000	8,000

All of this area has been overrun or is now surrounded by our armies and has been subject to intensive bombardment.

To the southeast of that area, in the Rhine Province is substantial textile manufacturing which was recently captured. It contains:

	Spindles	Looms
Rheydt	350,000	4,500
Muenchen-Gladbach	280,000	8,600
Mulfort	100,000	...

There are a few cotton manufacturing towns south of Breslau in Silesia but none of them have any very large number of spindles.

Between the Rhine Province and Saxony there is a very large area in which there are almost no cotton mills. It is the area through which our troops are now traveling towards Berlin.

East of Westphalia and north of Saxony all the way to the Baltic Sea and extending east from Berlin to the Polish border there are no textile mills.

These figures, while not entirely accurate, give the approximately correct picture of the location of cotton mills in Germany and should enable those who are interested to watch the overrunning of the cotton textile industry in Germany by the Allied armies.

When the war began Germany had approximately 12,000,000 cotton spindles and it will be interesting to learn how many of them are capable of being operated as the war ends.

At the end of March, the entire Ruhr area had been cut off from the rest of Germany. This section contains the important textile center of Muenchen-Gladbach, already 80 per cent destroyed by Allied bombing. Lieut.-Gen. Alexander M. Patch's American Seventh Army was cutting through northern Bavaria toward the centers of Bamberg and Bayreuth. It seemed anybody's guess as to whether the Americans or Russians would be first to reach the important cotton manufacturing area in the province of Saxony. In

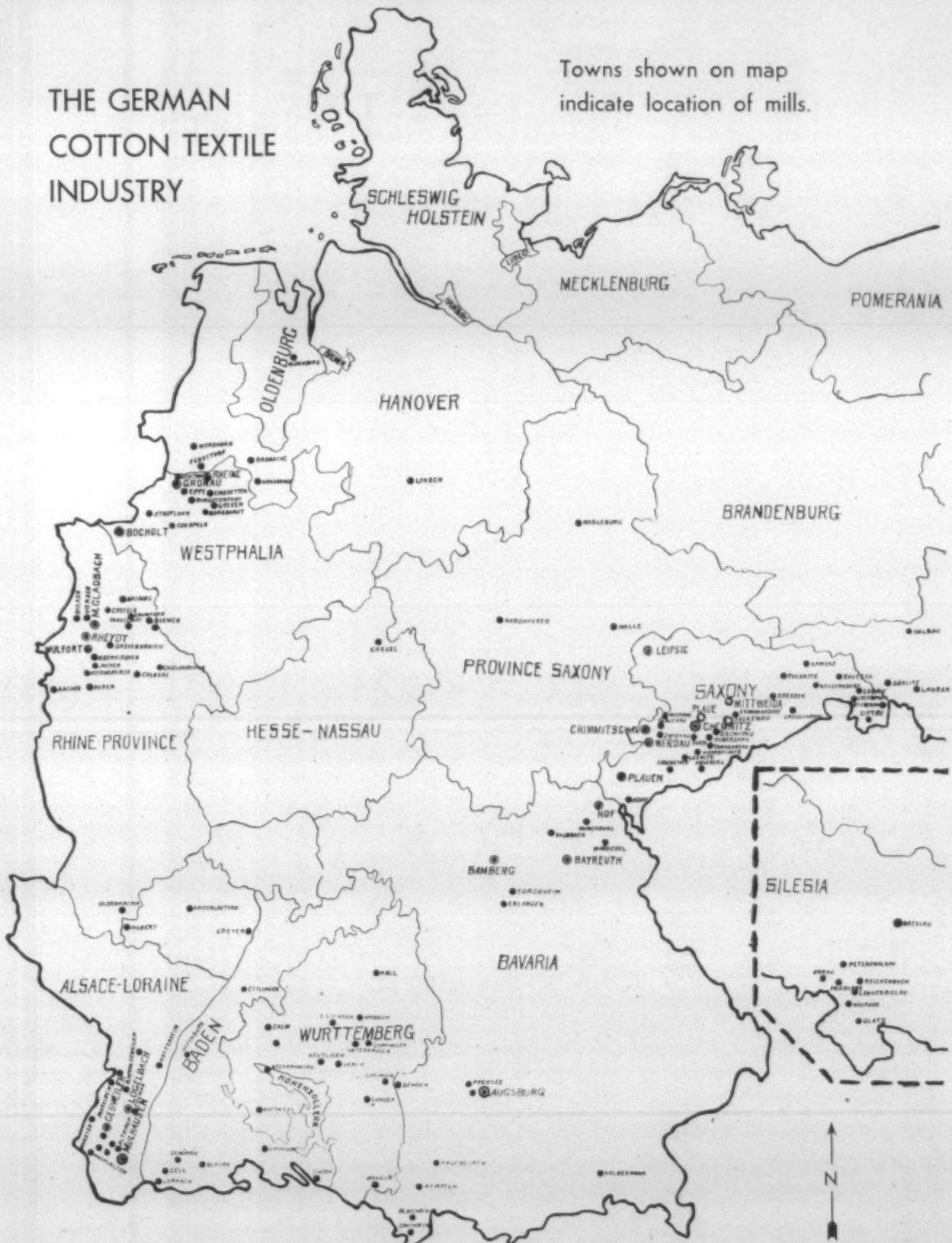
Patents Offered U. S. Citizens

An exceptional opportunity for United States citizens to reap the profit from millions of dollars of enemy research is presented through the Office of Alien Property Custodian. At the outbreak of the war some 45,000 United States patents and patent applications were seized from enemy aliens and nationals of occupied countries, and licenses under most of these are now available to citizens of the United States for an administrative fee of \$15 per patent.

About 30,000 of the seized patents are of German origin, while many of the remaining are Japanese or Italian. They cover practically every field of mechanics, electricity and chemistry, including textiles. Descriptions and drawings of patents in each field, such as textiles, have been incorporated into volumes, and these volumes are available at \$25 per set through the office of Alien Property Custodian, Chicago 3, Ill. Copies of the actual patents themselves may be seen at the Office of Alien Property Custodian, Field Building, Chicago; 120 Broadway, New York City; 17 Court St., Boston, Mass.; or National Press Building, Washington, D. C.

THE GERMAN COTTON TEXTILE INDUSTRY

Towns shown on map
indicate location of mills.



Silesia the Russians are heading north from Glatz and it seems but a question of time before the textile plants in this area are taken. The German rayon manufacturing industry is mostly located in the province of Saxony, threatened by Russian as well as other Allied forces. At least two rayon plants have come under Allied domination, those at Cologne

and Aachen. It is reported from Cologne that the Glanzstoff-Courtaulds building is only slightly damaged, but is temporarily idle for lack of raw materials. No word has been received concerning the Vereinigte Glanzstoff-Fabriken plant at Aachen. The situation for Germany's entire textile is just about this: much — (*Continued on Page 54*)

The Care, Operation and Maintenance of Four-Roll Drawing

By I. M. SHOPMAN

MILLS are becoming more and more convinced of the importance of closer supervision and proper maintenance and lubrication of drawing as an evener operation, and parallelization of cotton fibers than ever before. While drawing process is of simple design, and has fewer actual moving parts than any other process in the card room, it is no doubt one of the most important processes in the manufacture of carded or combed yarns. Regardless of the staple and grade of cotton used, and good carding, poorly conditioned drawing and careless operation will cause poor running, inferior production in the remaining processes, and in the end cause low breaking strength in yarn, and a lower grade of woven fabric.

Most mills find it an advantage to use two-process four-roll drawing, as two-process has proven to give a more evenly finished product. Four-roll drawing is manufactured in four, five and six delivery heads. Four-delivery heads give a higher production than either the five or six delivery heads, due to the fact that when the drawing is stopped, a less number of deliveries are idle. Then too, an operator can handle four-delivery heads more easily than five or six delivery heads.

One of the most important features in drawing is the maintenance and operation of drafting rolls. Both top and bottom rolls should be kept in good condition. If the metallic type of rolls, the top rolls should be removed once each week and the flutes cleaned on both top and bottom

rolls with a brissel brush to remove seeds and other foreign matter from the flutes, which will insure a smooth running roll. When this cleaning is done, the bottom rolls should be taken out so as to clean the roll bearing and roll stand slides; also top roll bushing cleaned. Before putting back the rolls, a good grade of lubricating grease should be packed on top of the bottom roll bearing, and top roll bushing lubricated with a good grade of oil. Gearing at both head and foot end of drawing should be checked to see that all gears mesh properly, so as to prevent wearing of the gears and studs. All the above applies to drawing equipped with cushion rolls, except the top rolls covered with synthetic covering. The rolls should be checked for out of round or hollowed out places. Top rolls in this condition should be either replaced or rebuffed.

Common practice with two-process drawing is to use the same grain sliver and six ends up on both breaker and finisher drawing, using a draft of six on both processes. However, it has been found that a shorter draft of 5.70 to 5.80 on the breaker drawing, and a draft of six on finisher drawing, will give a more even finisher sliver. This can be effected by using a lighter weight card sliver on breaker drawing than that used on finisher drawing.

After very thorough study of roll diameters for different lengths staple of cotton, and experiments which have been made covering different diameter rolls have proven the following diameter rolls desirable for the given length of staple cotton:

COTTON WEEK, 1945



The theme of Cotton Week observance this year, May 21-26, is an appropriate message reflecting the current short supplies of cotton textiles for civilian use as a result of the continued drain on mill output for direct and indirect war purposes. While no Cotton Week posters will be distributed this year in the interest of paper conservation, black and white proofs of the official symbol (as shown at left) will be put in the hands of all business interests which have accorded recognition to the event in past years. As usual, Cotton Week is sponsored jointly by the Cotton-Textile Institute and the National Cotton Council.

For carded cotton, $\frac{3}{8}$ " to $1\frac{1}{8}$ " staples.

Metallic rolls			
Front bottom roll	$4\frac{1}{8}$ " dia.	top roll	$1\frac{1}{8}$ " dia.
Second bottom roll	$1\frac{1}{8}$ " dia.	top roll	$1\frac{1}{8}$ " dia.
Third bottom roll	$1\frac{1}{8}$ " dia.	top roll	$1\frac{1}{8}$ " dia.
Fourth bottom roll	$1\frac{1}{8}$ " dia.	top roll	$1\frac{1}{8}$ " dia.
Composition or leather			
Front bottom roll	$1\frac{1}{8}$ " dia.	top roll	$1\frac{3}{32}$ " dia.
Second bottom roll	$1\frac{1}{8}$ " dia.	top roll	$1\frac{3}{32}$ " dia.
Third bottom roll	$1\frac{1}{8}$ " dia.	top roll	$1\frac{3}{32}$ " dia.
Fourth bottom roll	$1\frac{1}{8}$ " dia.	top roll	$1\frac{3}{32}$ " dia.

For carded cotton, $1\frac{1}{8}$ " to $1\frac{1}{4}$ " staple.

Cushion rolls (metallic not recommended)			
Front bottom roll	$1\frac{1}{4}$ " dia.	top roll	$1\frac{1}{16}$ " dia.
Second bottom roll	$1\frac{1}{8}$ " dia.	top roll	$1\frac{1}{16}$ " dia.
Third bottom roll	$1\frac{1}{8}$ " dia.	top roll	$1\frac{1}{16}$ " dia.
Fourth bottom roll	$1\frac{1}{8}$ " dia.	top roll	$1\frac{1}{16}$ " dia.

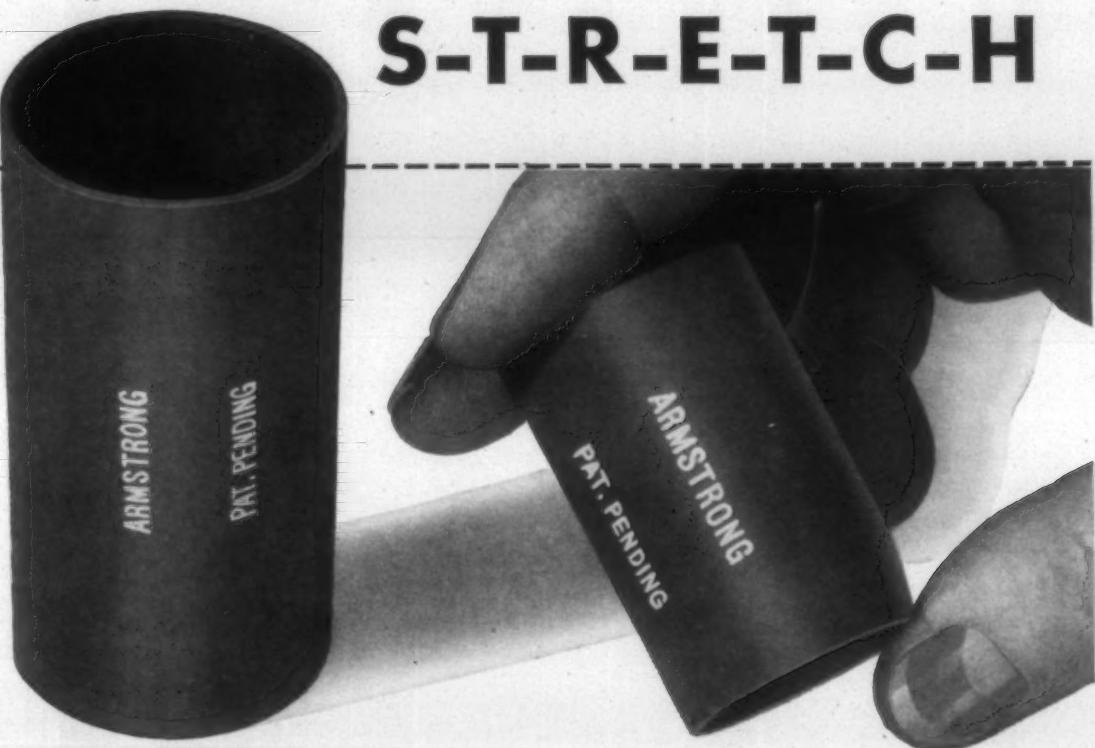
For cotton $1\frac{1}{8}$ " to $1\frac{1}{4}$ " staple comber preparation and synthetic fibers up to $1\frac{1}{4}$ " staple, drafts 8 to 10, cushion rolls.

Front bottom roll	$1\frac{1}{8}$ " dia.	top roll	$1\frac{3}{32}$ " dia.
Second bottom roll	$1\frac{1}{8}$ " dia.	top roll	$1\frac{3}{32}$ " dia.
Third bottom roll	$1\frac{1}{8}$ " dia.	top roll	$1\frac{3}{32}$ " dia.
Fourth bottom roll	$1\frac{1}{8}$ " dia.	top roll	$1\frac{3}{32}$ " dia.

Please note the small second line bottom rolls are used so as to get a closer setting to front bottom roll, and large third and fourth line bottom rolls are used to handle the large bulk of sliver which has—(Continued on Page 50)

There's no

S-T-R-E-T-C-H



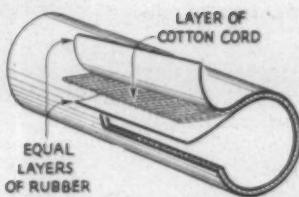
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affected by temperature or humidity, Accotex Aprons reduce lapping. And they're long wearing. Even after three years of continuous operation, under severe service conditions, Accotex Aprons show little sign of wear and retain every one of their superior qualities.

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ARMSTRONG'S ACCOTEX APRONS

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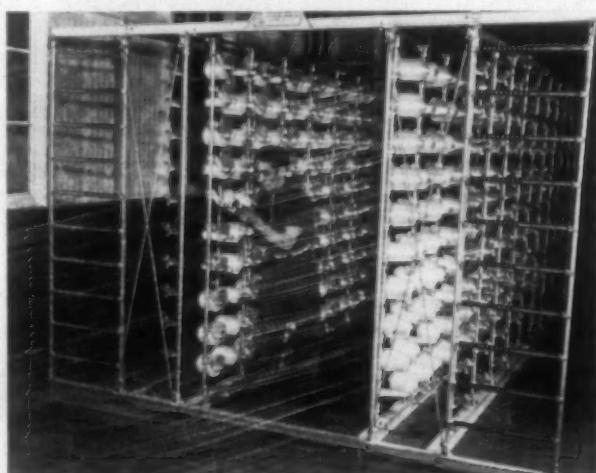
NYLON FOR B-29 TIRES

NYLON, yesterday's must for women's stockings, has become one of the vital necessities for the successful and efficient operation of many phases of this present global conflict. This material is now so essential to the manufacture of all types of aviation tires that special requirements by the Army have caused many new rules to be written into the laws governing critical area War Manpower Commission boards that supply workers for the textile industry. Those plants manufacturing tire cord and duck yarn will continue as long as necessary to receive first call on manpower and materials over and above all other occupations. It is now rated above AA-1 priorities which have had top rating since Pearl Harbor. Employee releases and referrals are unnecessary for workers desiring employment in these mills.

The magnitude of one individual operation of tire manufacture, that of preparing nylon for use in tire cord, may be seen from the fact that more than 10,000,000 pounds of material will be used this year for tire cord alone. A heavy backlog of orders for this cord is accumulating as the demand for additional aircraft is made by the fighting forces. Increased facilities are being made available for its production. Laboratory tests have indicated that nylon cord is better than 225 per cent stronger than cotton and 137 per cent stronger than rayon. Tires made of this material will take more abuse while the plane is landing than any tire made. Starting from a chemical which is extruded from minute holes drilled with diamond dies into metal discs, this

material becomes one of the strongest known fabrics to be used in the manufacture of many articles which would have remained unadaptable for war use were it not for the great tensile strength which the material develops as it is processed into cord and fabric.

In the preparation of nylon for tire cord the material is subjected to many processing operations before its use can be made practical for heavy-duty work. The accompanying pictures were taken at the Fisk plant of United States Rubber Co., New Bedford, Mass. One of the first operations in preparing this material for use as tire cord takes place in a specially air treated room. Room humidity is maintained at between 70 and 75 per cent while the fine hair-like filaments which are shipped in two and one-half pound cones are placed on the spindles of 1,216 spool creel banks. Here the glossy threads are led through a series of porcelain guides



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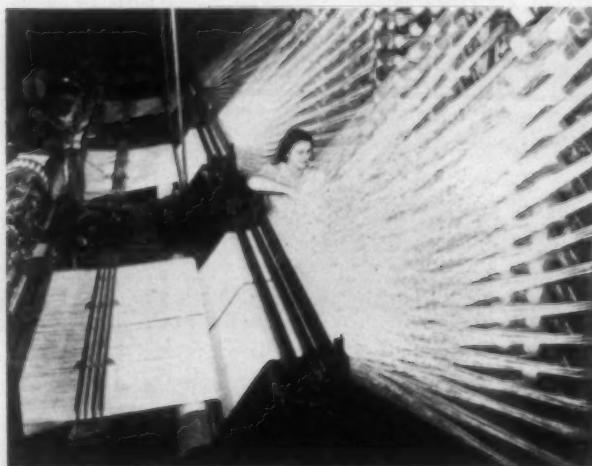
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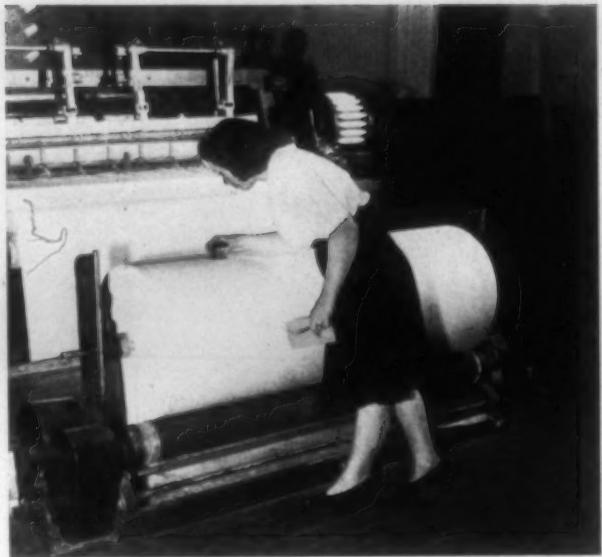
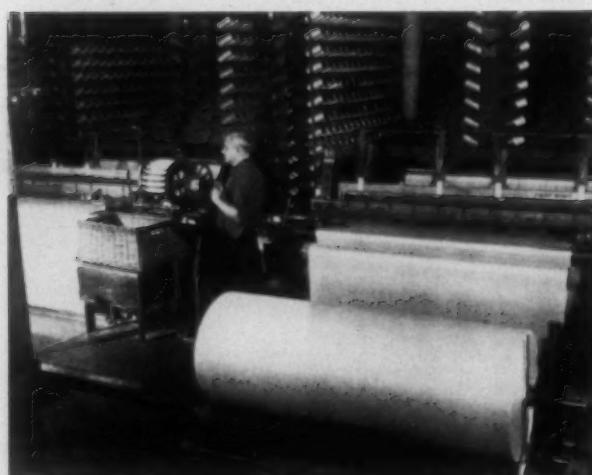
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culminating at a huge comb where they enter a warping machine. The warper is geared to provide exacting speed and steady pull on the fine threads which have been bunched or spaced by the comb and to properly wind the material on a huge beam or spool. When completely wound this spool contains 772 pounds of 34-strand nylon filament equal to 9,327 miles if stretched end to end. The beam or spool is then placed on a ply twister where four threads of 34 filaments each are then wound on smaller spools making a single thread of 136 filaments. These spools are in turn placed on respooling machines where the nylon is wound on larger spools. The material is then placed on a cable twisting machine. At the conclusion of these operations, the original thread which consisted of 34 filaments has been increased to 272 filaments. It is now ready to be woven. The enlargement from single strands to cable cord has automatically increased the tensile strength of the original thread from three and one-quarter pounds per strand to 27 pounds per cord. With the processing of the cord completed, the spools are placed in a creel bank behind an automatic loom. The cord is then fed through the loom where it is woven into a nylon fabric.

The use of nylon in tire cord was first experimented with by the United States Rubber Co. during 1940. Its importance to tires and aviation was first realized by military officials during the latter part of 1942 when the giant bombers which were being used on all battlefronts were



Above, previously twisted nylon cord is being fed into a loom by Dollinda Baroa. Below, Eugene Brasseur is respooling the thread which binds the nylon fabric.



Above, Lucille Souza is inspecting the newly woven fabric. It is now ready for use in tire manufacture. Below, the 1,000th B-29 Superfortress recently delivered to the Army Air Forces is being equipped with a United States Rubber Co. tire which contains nylon.



called upon to carry heavier and heavier loads. Frequent blow-outs in ordinary tires while landing caused much consternation among Army officials who feared loss of men and equipment. These tire failures, plus the excellent performance experienced with 50 planes equipped with nylon tires, resulted in further experimentation by scientists of the company. The problem confronting these men was whether or not tires of the same circumference could be made with a sufficient amount of additional strength to give the required performance and to meet plane design requirements. Experimental tires having 60 per cent greater strength than those previously made of rayon with a similar circumference and identical weight but made of nylon were found to fit perfectly with the plane design and to insure the carrying of heavier loads. All other requirements which experienced flyers had contacted in the actual operation of the planes were also fulfilled. While these tires have been developed solely for wartime performance, they are designed to meet the stiffest commercial plane requirements any tire has been called upon to perform. Post-war possibilities for commercial aircraft and heavy-duty — (Continued on Page 41)

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Textile Industry Eyes Significant Washington Activity

By HARRY GWIN

OF recent developments in Washington that affect the textile industry, probably the most important in the eyes of both textile employers and employees is the precedent-setting order of the War Labor Board, recommending for 50,000 workers "fringe" wage increases which the WLB said would increase production and "help win the war." The order directed mills and workers to continue collective bargaining with the 55-cent hourly minimum rate and other wage adjustments that had previously been announced by the WLB in tentative form, as the guideposts.

This decision was reached over the dissenting opinion of the industry members of the WLB. The industry members stated that neither the past record of the industry nor the over-all manpower situation justify the inference that increases ordered by the board will have a favorable effect on employment in the textile industry. These members contended that the 55-cent minimum wage for unskilled workers cannot aid the textile industry in obtaining manpower when it applies "as it now does by later board action, to all other industries as well." The "later board action" referred to is the board's resolution in which it authorized its regional boards to "determine what rate or rates up to 55 cents an hour constitute sub-standard or salary rates in their regions

for the purpose of permitting consideration of the proposed adjustments up to the specified minima." Previously a 50-cent figure was used.

The approved increases for textile workers may be put into effect only if the price administrator finds they will not force price ceilings up, or if Economic Stabilization Director William H. Davis approves them anyway. There appeared to be no doubt that proposed increases would be allowed inasmuch as they were originally approved while Mr. Davis was still WLB chairman. The original order pertaining to the wage increases was issued Feb. 20 but only in tentative form pending the working out of an agreement with the then Economic Stabilization Director Fred M. Vinson on fringe wage awards such as vacation pay, shift differentials and the like. Shortly before he took over as Federal Loan Administrator, and before Mr. Davis stepped into the stabilization post, Mr. Vinson issued a statement paving the way for the latest board action of March 17 which made the order permanent.

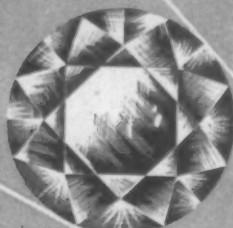
In commenting upon the board's action in making the order permanent, the new WLB chairman, George W. Taylor, issued the following statement: "It simply doesn't make sense to continue to hamper the production of urgently needed supplies of textiles by continued payment of the existing sub-standard minimum wages and by continued use of grossly unbalanced wage rate structures. The correction of such obvious defects in the industry's wage structure will help win the war and provide a more equitable basis for operations in the peace which is to follow. Vitally important cotton textile manufacturing pays the lowest wages of any basic industry in the country. Its minimum wage of 50 cents per hour provides a definitely sub-standard living, particularly under present circumstances."

The WLB chairman said the proposed grants will result in an average wage of approximately 65.5 cents per hour for all employees in Southern plants directly affected, and about 72.5 cents in Northern plants. He added that the order is expected to become effective almost immediately throughout the North, and in a year or more in the South.

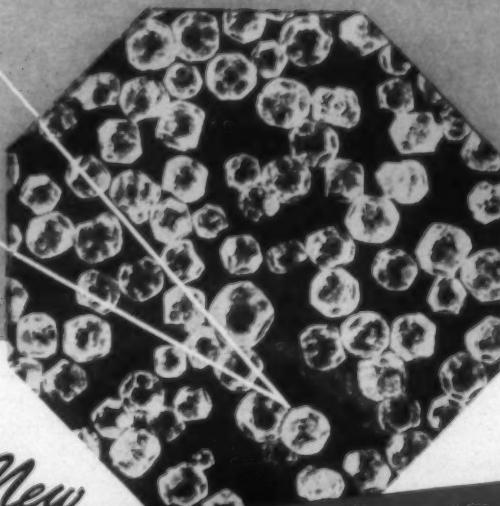
Meanwhile the Office of Price Administration entered the picture by notifying manufacturers affected by the WLB order that, if they intend to seek price relief, they should file preliminary petitions with the OPA immediately. The mills notified were the 54 which are under contract with the Textile Workers of America, CIO. Until they become parties to a WLB case, and then only as required by OPA procedures, other textile firms need file nothing with OPA, the agency added. OPA's sole concern with the case is to determine whether the wage increases will require an increase in textile prices, OPA spokesmen said. The extent of the wage increases depends in part upon negotiations between manufacturers and the union, further—(Continued on Page 40)



"Suh! I resent yo' insinuations that the cotton situation is due to mah constituents stuffing the crop in their ears during the last campaign!"



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-ANONYMOUS-

The initial article of this series dealt with the growing number of so-called codified plans now being offered to the textile industry. These plans are used to classify all types of dyed, printed and finished fabrics intended for use in the manufacture of clothing. The author of this series is convinced of the good theory behind these plans, but contends that they are being imposed upon textile plants without a thorough determination of requirements essential to manufacturers and consumers. There is a distinction between specifications set up by non-authoritative organizations and those offered by various textile manufacturers and converters (under company brand names) which indicate quality of merchandise the consumer can expect.

To assist chemists, dyers, printers and finishers who must meet the specifications of these various plans, the current installment discusses the preparation of reports on all types of dyestuffs with many of the new tests which have become necessary. Also dealt with is brief data which is essential wherever new resin finishes are used, and when there are one or more of the synthetic yarns incorporated in the yarns or goods to be processed.

PLANT officials, co-operating with the technical staffs of dyestuff and textile chemical manufacturers, have developed some interesting types of informative reports which have helped many finishing plants following specifications of various codified plans. There are probably no two plants which can use the same informative report system for filing technical data; readers interested in these ideas for their own particular plants may, however, use the suggestions below as the starting point for working out data sheets to fit their own specific needs.

Dyestuff, resin and textile chemical manufacturers can be of much assistance in furnishing specific technical data if a plant will state exactly what is wanted and furnish sufficient fabric or yarn to carry out tests. Specific requests would help to reduce waste of manpower in technical laboratories, since manufacturers of dyes, resins and chemicals often are not told exactly what information is desired. Technicians can furnish facts which will enable chemists, dyers and finishers to minimize the number of laboratory tests and small finishing runs. It is essential that each party plays fair with the other so that unnecessary tests may be avoided. Suppliers' technicians must make impartial reports on their findings, not super sales talks, or dyeing and finishing plants will lose faith in these sources of technical assistance.

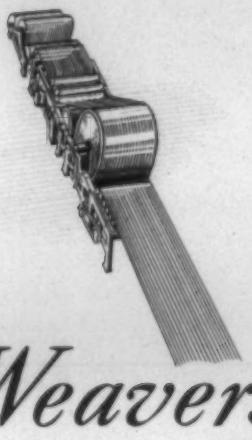
Textile plants have found several ideas helpful in tabulating special data on dyestuffs to be applied to synthetic

and natural fibers. They use a fabric woven with cotton warp and wool filling with special stripes of nylon, acetate and viscose rayons, mercerized cotton, silk, aralac or any other yarn desired. This special lot of goods can then be used in making tests with direct, wool (acid or neutral dyeing) and acetate colors; the dyed and finished swatch thus may be subjected to various fastness tests required by plan specifications. Results are then tabulated until the plant is ready to run an experimental dye lot. This gives the dyer sufficient data with which he may select colors and finishing agents which meet specifications demanded.

After the experimental lot has been dyed and finished according to technical data developed in small laboratory tests, the plant is then able to run a series of checks on the finished goods to see how well the recommendations apply to full-scale operations. If weak points show up they may be corrected by working out new tests methods which simulate plant procedures very closely and do not employ the routine methods suggested by color cards, manuals or textile chemistry text books. From these careful checks corrections can be made on plant records as to actual results obtained with each dye or finishing agent used. If a particular dyestuff has proven satisfactory on similar operations in the past, new comparative checks may be made in the laboratory against a master sample before—(Continued on Page 46)



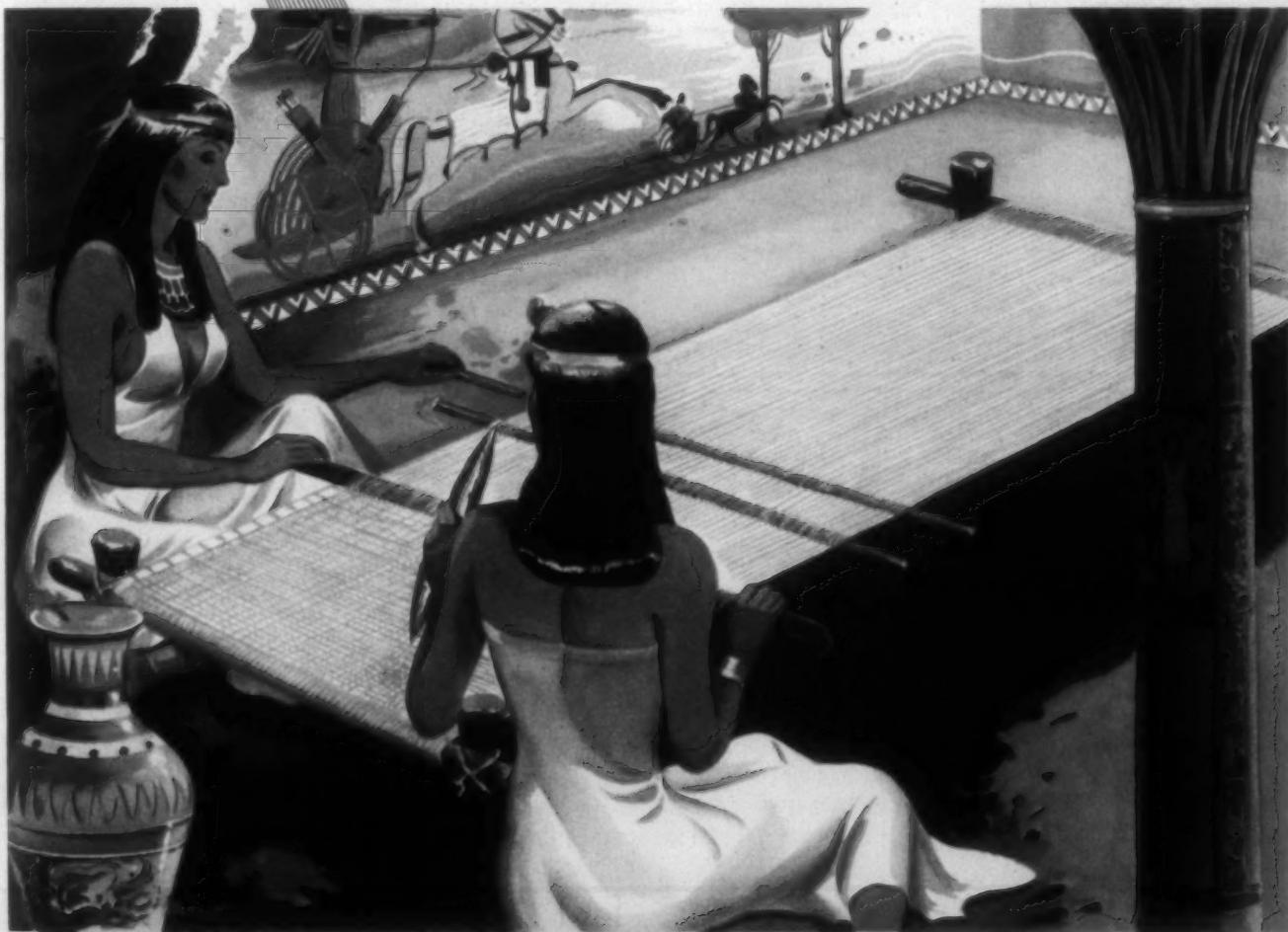
The Eta Chapter of Phi Psi textile fraternity was re-activated March 24 at the school of textiles of North Carolina State College, Raleigh, under the guidance of a group of Phi Psi alumni from Charlotte. New members, shown kneeling in the picture above, are, left to right: Travis J. Martin of Walkertown, N. C.; Jorge G. Nadjar of Santiago, Chile, senior warden; Graham M. Byrum of Edenton, N. C.; William B. Heyward of Charlotte, vice-president; Armand A. Poitras of New Bedford, Mass., secretary; Dwight L. Waynick of Greensboro, N. C., president; and William E. Gupton of High Point, N. C., treasurer. Standing, left to right: G. H. Dunlap, research director at the school; Thomas Nelson, Jr., of Penick & Ford, Ltd.; Prof. T. R. Hart; Jack Kilheffer of E. I. du Pont de Nemours & Co., national vice-president of Phi Psi; Charles B. Ordway of American Aniline Products, Inc.; Prof. W. E. Shinn; Thomas Nelson, dean emeritus of the school; and A. R. Thompson of Ciba Co. The occasion featured initiation rites and an informal dinner at which Dean Malcolm Campbell was the speaker.



● In those ancient times Egyptian weavers had discovered the value of warp sizing. History tells us that after the cotton had been spun and placed lengthwise in the horizontal loom it was necessary that the yarn then be starched with a paste made from grain. This smoothness served as a protection against the tearing action of the shuttle.

Weavers of Egypt . . .

Today—highly trained laboratory workers keep constant watch to guarantee the uniform quality of Staley Textile Starches. As a result you are sure of consistent, dependable performance from each and every shipment. Staley's complete line of unmodified and modified Corn Starches makes it possible to select the proper starch for any sizing formula. Staley's prompt service and complete cooperation—proved in more than a quarter of a century of serving the nation's textile mills—can help you. Staley's can recommend the correct starch for all of your sizing requirements.



Number Two in a series published as a Tribute to the Development of Weaving through the centuries.

"In upper Egypt, toward Arabia, there grows a shrub from which the stuffs are made which we call Xylina (cotton fabric)." — PLINY: a Roman naturalist of 23-79 A. D.



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DECATUR, ILLINOIS

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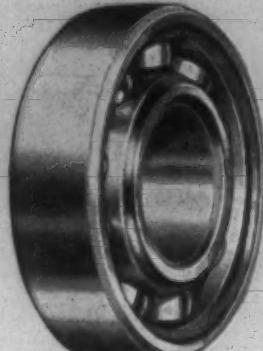
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FAFNIR PLYA-SEAL BALL BEARINGS

Performance Proved in Military Equipment • Now Available for General Use



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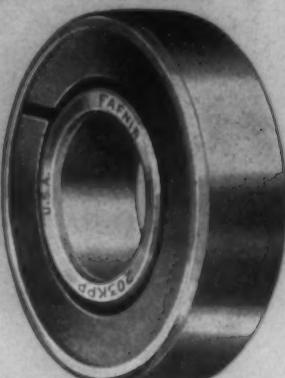
Flexible Sealing Washer

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Split Retaining Ring

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FAFNIR PLYA-SEAL BEARING

POSITIVELY SEALED — SEALS EASILY REMOVED

THE result of five years of development and testing, PLYA-SEAL bearings have proved the most effective, self-protected bearings yet designed. Approved for aircraft by the Army Air Forces and the Bureau of Aeronautics U. S. Navy, Fafnir PLYA-SEALS have been in use successfully for over two and one-half years in aircraft control bearings and operating equipment. Several thousand bearings incorporating the double PLYA-SEAL have completely eliminated former difficulties with metal shielded bearings in textile machines.

Whether you are designing a new product or planning to resume production on an old one, you will find it very much worthwhile to investigate and test Fafnir PLYA-SEAL Bearings. Write for complete descriptive folder. The Fafnir Bearing Company, New Britain, Conn.

WHAT IS PLYA-SEAL?

A diaphragm-type, contact seal comprised of two members — a flat, flexible sealing washer of synthetic rubber impregnated fabric and a split retaining ring of stainless steel.

Firmly held in the outer ring, the sealing washer does not rotate with the inner ring but is in contact with a ground groove to form a very effective seal with a minimum of friction.

WHAT ARE PLYA-SEAL'S ADVANTAGES?

- 1 Assures maximum retention of lubricant, maximum exclusion of dirt and liquids.
- 2 Causes no distortion of the outer ring or race, nor does it affect the concentricity of either the rings or races.
- 3 Forms a positive seal with the outer ring while maintaining perfect contact with the inner ring.
- 4 Non-capillary and impervious to liquids, grease, oil, gasoline, water and a wide variety of solvents. Not affected by heat or cold. Sealing washer does not deteriorate with age.
- 5 Easily removed and replaced to allow inspection, washing and re-greasing.



FAFNIR BALL BEARINGS

MASTER MECHANICS' SECTION

Ball Bearing Equipment in Textile Mills

By STANLEY D. BERG



In this article the author, pictured at left, reviews in a general way the various applications of ball bearings to textile machinery. Subsequent articles will deal with specific applications, explain methods of changing over from plain to ball bearings, and cite case histories showing the actual savings realized by mills which have made the change.

MODERN machinery in textile mills is now equipped with ball bearing units which are the result of many years of gradual changeover from plain bearings to ball bearings. Textile machinery, to offer cleanliness, uniform production and smoothness of operation, demands ball bearing equipment.

Many years ago cotton gin and cottonseed oil mill machinery manufacturers adopted ball bearings as necessary to seal out dirt and retain lubricants. Many other types of bearings had been used, but finally ball bearing equipment was found to be the most satisfactory.

Opening Room and Picker Room

Because of the dirt, sand and other enemies of any kind of a bearing, we also find that the ball bearing has entered the textile manufacturing field on opening room machinery as well as in the picker room. They were applied on beater and fan applications but were not seriously considered on other parts of the picker until an even lap demanded a better bearing application on even cones, side shaft, shifter pin, feeds rolls and all moving parts connected with evener. Because of cleanliness and maintenance, sealed ball bearing units are now also being used on apron roll shafts of lifting aprons, take-up units, adjustable comb roll units as well as units used with the stationary head. Modern rebuilt pickers have these parts ball bearing equipped. The Aldrich synchronizer is ball bearing equipped throughout. To avoid spoilage of goods due to oil drip the equipment in opening and picker rooms are necessary places to apply a clean, smooth running bearing. This also applies to the bale

breaker in the opening room, for which complete units are now offered in a ball bearing design.

Card Room

As group drive is the presently accepted method of driving cards, we find that the ball bearing unit, offering insured protection against drip, is best for line shafts. If a shaft is worn, the bearing location must be changed or a new shaft installed, since a bearing will not be satisfactory if mounted on a worn shaft. However, because of the power losses and damage to manufactured product as well as card clothing from oil and grease drip, the plain bearing is the most costly a cotton mill can operate. Ball bearing equipment soon pays for itself, including installation cost, in a very short time, making a very satisfactory investment and insuring against loss of goods and making possible a maintenance saving. The drive shafts of drawing frames are also being changed to ball bearing pillow blocks by applying a proper pillow block to cross-members of drawing frame.

Spinning Frames and Twisters

One of the largest sources of power requirement is in the spinning and twisting room. An aligning ball bearing which will provide for end thrust has proven most satisfactory for the cylinder shafts of spinning frames and twisters. More uniform operation is insured, and as there is often a loss in production with a full bobbin, we find that ball bearing equipment takes the brakes off of the shaft so that the motor can maintain its normal speed and therefore show greater production. Instead of the constant oil requirement, we find these units arranged for lubrication with grease which needs relubrication three or four times yearly for night and day operation. The pitman roll which operates the cam regulating traverse of side rails has also proven one of the biggest improvements on a spinning frame and twister. While only one bearing is used per frame we find this to be a very necessary application. The cam shaft bearing and jack shaft bearing as well as other costly friction bearings should also be changed to ball bearings.

Slasher Room

Large and small cylinders of slashers are rapidly being changed over to ball bearing equipment which reduces the stretch of yarn and makes possible a very easy running cylinder. Size roll units are now also fitted with proper ball bearing applications. Drive shaft, cone pulleys, friction head and pressure rolls are rapidly being equipped with ball bearings. Other shafts used for guide rolls and idler rolls as well as creel stand units require ball bearings. Drive

shafts for size kettles as well as counter-shafts driving slashers and kettles may now be changed to ball bearings. The friction bearing may have been necessary in the past but now that ball bearing units are available for most shaft applications the slasher room has been greatly improved by removing friction bearings and replacing with ball bearing units.

Weave Room

In the weave room, where line shafts are used, ball bearing hanger boxes, provided with grease traps, have proven very satisfactory when properly applied to shafts. They can be supplied to fit present hanger frames and will pay for their cost in power saving and maintenance saving within three or four years. Plain bearings on line shafts cost the textile mill, in losses, enough to pay for installation of ball bearing equipment in a few years. Treadle rolls and other loom bearings are now also being offered in ball bearing equipment.

In the cloth room, where cleanliness is so important, we find ball bearing units are being applied to stitchers, folders, inspection machines as well as on drive shafts. Textile finishing machinery is being rapidly changed to ball or roller bearings with shaft sizes of from one-half to nine inches. Proper anti-friction bearing applications is recognized as necessary in a textile finishing plant where cleanliness, maintenance and power requirements must be considered.

Electric Motors

The old heavy line shaft, driving textile machinery from steam engines, is now almost obsolete. Group drive and individual drive with smaller motors have proven their value. However, only in recent years have ball bearing motors proven satisfactory. Many mills are now changing old motors to ball bearing equipment with motor cartridge units. This ball bearing motor cartridge unit is also proving its importance on motors in the textile industry from cotton ginning machinery right through the textile plant to the cloth room.

Because of the recognition of ball bearing equipment in all industry there is a very heavy demand on ball bearing manufacturers. The war must be won regardless of other improvements desired, which will mean that the textile industry must wait its turn before extensive improvements can be made. The present time is a good time to make a start in all departments. This work can be completed as bearing units may be available.

Proper lubrication of ball bearings is very important. Ordinary greases should not be used. When a proper lubricant is used we find very low maintenance cost and subsequent long life of ball bearing equipment. An improper lubricant will not only separate and cause oil drip with accumulation of dirt in bearings, but will also materially shorten the life of the unit.

Rayon machinery is completely ball bearing equipped; electric drills and equipment, household machinery, wood-working machines, laundry and finishing machinery also employ ball bearings.

A very definite improvement is made when textile machinery is equipped with ball bearings at the shop or changed to ball bearings on machinery in the mill. Most plain bearings in a textile mill can be easily replaced with ball bearing units. They provide the best efficiency, and equipped with proper housings to seal in the lubricant, seal out the dirt.

Oliver Landis Starts New Business

Oliver D. Landis of Charlotte has established his own business and will market to textile mills in the Carolinas and Virginia a complete line of transmission leather belting, mechanical leather specialties, and also a line of slasher, roller and clearer cloth. Products marketed by Mr. Landis will be branded under his name. For a period of 20 years prior to this war, Mr. Landis was sales representative in the above territory for Graton & Knight Co. He is well known throughout the South's cotton manufacturing industry.



At the outbreak of war, Mr. Landis was commissioned as a lieutenant in the United States Naval Reserve. He is shown in his uniform at left. After graduating from the Naval Air Gunners School at Pensacola, Fla., he was sent to the South Pacific where he spent several months as air gunnery instructor and made several gunnery and bombing flights over enemy territory, operating from carriers and land bases. After returning to the states, he was assigned to the air gunners school at Hollywood, Fla., and from there to the U. S. Naval Air Base at Whidbey Island, in the northern part of the state of Washington. He is now released to inactive duty and will retain his commission in the naval reserve.

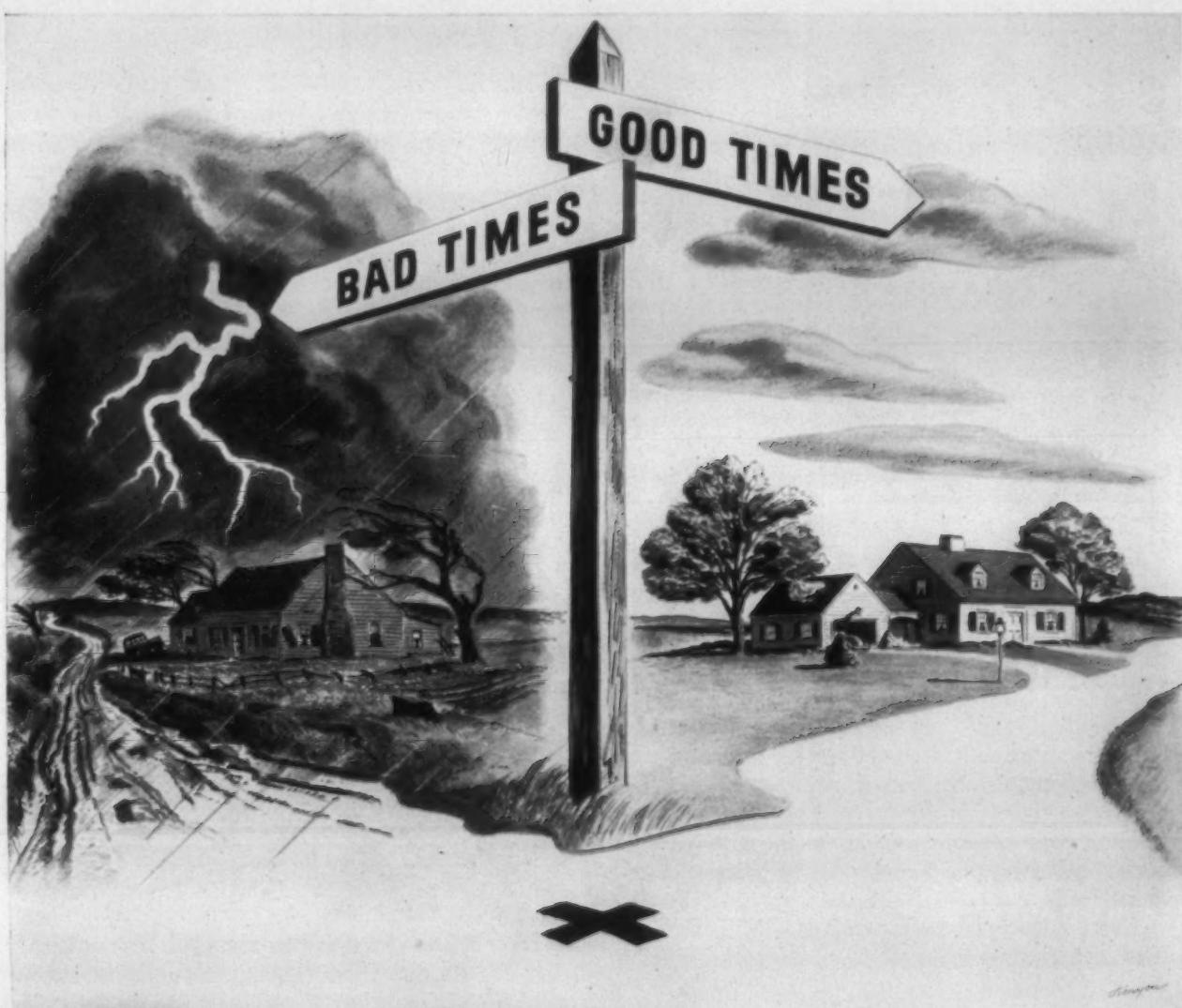
Mr. Landis also served in the first World War, enlisting in the Navy at the age of 17 while still in his freshman year at North Carolina State College. In that war he held the rate of gunners mate first class and spent 26 months at sea, serving on battleships, destroyers and troop transports engaged in convoy duty in the North Atlantic.

Conveyer Equipment Firm Organized

The only firm southeast of Chicago to manufacture industrial elevating conveyors has been formed by H. B. Owsley & Son at 505 Dowd Road, Charlotte. The company will also distribute electric hoists, cranes, overhead conveyor systems, hydraulic lifts and tiering trucks.

The idea for producing the conveyors, which are both power-driven and of the gravity type and either fixed or mobile by means of roller bearings, was conceived and executed by William S. Miller, manager of the industrial division of H. B. Owsley & Son. Preparations are being made to begin large-scale production of conveyors as well as manufacture of custom-built conveyors ordered by individual concerns.

The National Foreman's Institute, Inc., has announced the publication of three manuals which are calculated to be of interest to business executives, supervisors and individuals charged with executive responsibility. The first of these, "The Industrial Housekeeping Manual," by R. F. Vincent, pertains to the job of housekeeping on a big scale as it is done in industrial plants. The second, "How to Handle Labor Grievances," was written by Dr. John A. Lapp and cites actual cases and solutions. The third, "Conference Leader Training," was prepared by Edward S. Maclin, president of the West Virginia Institute of Technology, and Paul S. Henry, chief of civilian training for the War Department, Middle Atlantic Division of Engineering. Further information in regard to the manuals may be secured by writing to National Foreman's Institute, Inc., Deep River, Conn.



Here's where you stand today!

Look ahead a year or two...for your own sake.

Over on the dark side is this: Every unnecessary thing you buy helps shove the country one step nearer inflation and the bad times that come in inflation's wake.

Over on the bright side is this: Every single cent you save helps move you and your country one step nearer the kind of prosperous, happy, post-war America you want.

Okay—you're human. You're thinking mainly about yourself.

YOU SHOULD. Because if every man Jack (and every girl Jill) buys nothing he can get along without . . .

(avoids Black Markets and "just-a-little-above-the-ceiling" like the plague!) . . . pays off the mortgage or any other debts . . . takes out more insurance . . . builds a healthy sock of savings . . . buys and holds more War Bonds—*inflation will stay away from our door.*

And Jack and Jill will be in a sound position no matter what times come.

Maybe you ought to clip this signpost and paste it in your pocketbook as a reminder that you can BUY your way to bad times. Or you can SAVE your way to good ones.

That's where **YOU** stand today.

4 THINGS TO DO to keep prices down and to protect your own future!

1. Buy only what you really need.
2. When you buy, pay no more than ceiling prices. Pay your ration points in full.
3. Keep your own prices down. Don't take advantage of war conditions to ask more for your labor, your services, or the goods you sell.
4. Save. Buy and hold all the War Bonds you can afford—to help pay for the war and protect your future. Keep up your insurance.



A United States War message prepared by the War Advertising Council; approved by the Office of War Information; and contributed by this magazine in cooperation with the Magazine Publishers of America.

textile bulletin

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Penalty for Generosity

Many years ago when both cotton mill wages and the selling prices of cotton goods were far below what they are today, the directors of the Erwin Cotton Mills decided to give a Christmas bonus to their employees.

There was no obligation upon them to give the bonus and it was not then a common practice among cotton mills.

The employees of the Erwin Cotton Mills had been friendly and co-operative and the directors decided to give them a Christmas present in the form of a bonus and because it seemed to be appreciated they continued that practice.

In recent years wages have been materially advanced, and instead of showing friendliness and co-operation, the union members of the Erwin Cotton Mills have been antagonistic, unfair in their demands and have promoted strikes which greatly reduced the earnings of the mills.

Under these circumstances the Erwin Cotton Mills discontinued the practice of giving Christmas bonuses and we do not see how any fair-minded person could blame them for that action.

The CIO leaders, however, appealed to the War Labor Board to force the Erwin Cotton Mills to continue to play Santa Claus but the War Labor Board denied the appeal.

This effort to penalize the Erwin Cotton Mills because in days of co-operation and friendliness they had voluntarily given Christmas presents to their employees is typical of the attitude of the CIO.

With their usual unfairness union leaders argued that because the Erwin Cotton Mills had been generous to their employees they should now be penalized for that generosity.

The Washington Panic

We hear much about the panic among German soldiers and civilians but that is not all of the panic existing today, because the immense army of civilian officeholders in Washington see the end of the war in Germany as bringing an end to their soft jobs.

Many of the organizations which were created under the war emergency are now trying to create the impression that present regimentation must be continued in peacetime.

One group is trying to take advantage of the public will to see that returning soldiers are provided with jobs and trying to make the country believe that it will be a problem of great magnitude and that many bureaucrats should be employed to see that it is handled correctly.

They are telling the public that 60,000,000 jobs must be provided although a few of them are more conservative and speak about 55,000,000 jobs.

The total population of the United States between the ages of 20 and 65, including men in the armed forces, is 78,000,000, almost equally divided between men and women.

There are, therefore, 39,000,000 men, including men in jails and insane asylums, men permanently employed in New Deal jobs, a very large number above 60, and many below that age who are physically incapable of handling jobs.

If we deduct 5,000,000 men, which is a conservative figure, we find that 34,000,000 men will need jobs.

If 60,000,000 jobs must be provided, it would mean that 26,000,000 of the 39,000,000 women would desire jobs. If we deduct 5,000,000 women as incapable of handling jobs, that would leave only 8,000,000 as housewives, whereas in America much more than half the women look after the homes and the children while their husbands work.

There must be a great panic among the officeholders in Washington if they have reached the point that they are trying to scare the people of the United States with any such story.

We must see that returning veterans find jobs but we must not be scared into creating a large bureau to provide 60,000,000 jobs when no such number of jobs will be needed, and thereby continue to employ many thousands of the present bureaucrats.

Labor Legislation

The right of the states to regulate the activities of labor unions is to be decided by the United States Supreme Court, a body which was packed for the specific purpose of obtaining decisions friendly to New Deal ideologies.

Recently the American Federation of Labor and Congress of Industrial Organizations questioned be-

fore the Supreme Court the constitutionality of sections of Alabama's Bradford Act regulating labor union activities within the state.

Provisions of the 1943 Alabama act, which bans supervisory employees from membership in unions of non-supervisory workers and require labor organizations to file statements of their laws and financial status, were questioned by both unions.

The AFL, in addition, contests a section which prohibits unions from collecting money "as a work permit or as a condition for the privilege to work." Initiation fees and dues are exempt from the provision.

The Alabama Supreme Court held the three contested sections constitutional.

Now the United Association of Journeymen Plumbers and Steamfitters Local 234, AFL, has appeared and asked the United States Supreme Court to declare the recently enacted Florida law invalid on the ground that it violated the bill of rights.

The attorney general of Florida argued before the Supreme Court that the public will need divine help if labor unions are held to be exempt from state regulation.

He insisted that Florida was making valid use of its police power in trying to enforce requirements that paid business agents of unions must take out a \$1 license and that labor organizations register names and addresses of their top officials.

The decisions in these two cases will be watched with much interest.

The right of the citizens of a sovereign state to regulate state affairs is to be decided by a group of men who were placed in position to make the decision by New Dealers who do not believe that the Bill of Rights should be allowed to stand in the way of any of the wishes of any of their friends.

Neither Alabama nor Florida enacted any extreme law but labor union leaders contend that no regulations should be allowed to apply to their racket. They have come to believe that they are a privileged class and beyond and above all regulations.

The Fate of German Cotton Mills

On pages 17, 18 and 19 of this issue we are publishing information about German mills along with a map which indicates their location.

With Allied armies overrunning Germany, this information should be interesting to American textile manufacturers since it will have a bearing upon the ability of European mills to clothe the people of Europe and Asiatic Russia and also to compete with our mills in the export markets of the world.

Noting that many of the German cotton mills are located in areas which have been heavily bombed for two years or more, and knowing that cotton mills are housed in large, sprawling buildings, we assume that they have been excellent targets.

A group of American textile experts has now gone to Europe to direct the resumption of production by French and Belgian textile mills, many of which were wrecked by the Germans, and it is very probable that if any of the machinery in the damaged German mills can be repaired and made usable it will be distributed to French mills.

Most Russian mills were in the area which was overrun by the Nazis and we assume that under the scorched earth policy of Russia they were destroyed; however, it is possible that some of the equipment was moved beyond the invaders' reach.

One thing is very definite—for almost six years very little new textile machinery has been built even in the United States. During this period of years machinery in existence has been operated under high pressure, much of it upon a three-shift basis. Six years of operating under war pressure has been equivalent to at least ten years of wear under normal conditions.

In general, there is no longer any new machinery. During the depression years prior to this war, many of our Southern cotton mills did change to long draft spinning, but in most cases only the stands and rolls were adapted; very few frames were put into operation. All present machinery is old and will soon begin to show the effects of wear caused by stepped-up war schedules.

Many of the cotton spindles in the world have been bombed out of existence, and most of the remainder are old and tired.

The people of the world, however, have done without cotton goods for six years and their garments and household goods are thin and worn. It will be a huge problem for the remaining spindles and looms to produce enough goods to meet post-war demands.

America in the Philippines

Brig-Gen. Carlos P. Romulo, recently appointed resident commissioner from the Philippines to the United States, is well known to many persons in the United States, especially Rotarians, because of his term as first vice-president of Rotary International. He recently said in an article in the magazine section of the *New York Times*:

My family (in the Philippines) hated the Americans, but as it became possible to see something of what they were doing, the hate changed to wonder, the wonder to a desire to learn. With the satisfaction of that desire came understanding. Out of understanding came respect; out of respect, loyalty. America brought to the Philippines the realization of the incarnate dignity of the human soul. This is a realization that can be, and should be, brought home to all the peoples of the earth.

There is no greater contrast in all history than the attitude of the people of the Philippines to the United States as compared to the attitude of the peoples of India and Burma toward Great Britain.

WHITNEL, N. C.—The American Yarn & Processing Co. is enlarging its Mill No. One to sufficient extent to accommodate all of the machinery which has previously been located in Mill No. Two. Mill No. Two will be equipped as a woolen plant with machinery which was purchased in New Jersey.

COLUMBIA, VA.—Uxbridge Mfg. Co. of Uxbridge, Mass., has exercised an option on a 300-acre tract of land in Fluvanna County on which it plans to erect a woolen mill which will employ approximately 800 persons. It is estimated that the plant will cost \$1,000,000 or more, and will be designed for later expansion. The property, located at the forks of the Rivanna and James Rivers, was acquired for a purchase price of \$35,000. The mill will consume a large quantity of water each day, which will be supplied by the Rivanna River.

ROCK HILL, S. C.—Plans for a \$625,000 expansion program which would provide jobs for about 517 additional employees and give Rock Hill more than \$1,000,000 a year in additional payrolls have been disclosed by the Rock Hill Printing & Finishing Co. The building plans include construction of a rayon building at a cost of about \$430,000 and of four warehouses at a cost of \$78,000; completion of six warehouses at a cost of \$110,000, and the possible addition of a conveyer to move heavy goods.

CHARLOTTESVILLE, VA.—The Virginia Braid Co. has been purchased by the Coventry Co. of Coventry, R. I., of which J. M. Brogden is president and treasurer. The firm name has been changed to Virginia Textiles, Inc., with H. J. Pelchat as president and general manager and J. M. Brogden as treasurer. The company is engaged in the manufacture of braids, narrow fabrics and cords.

Callaway Stockholders to Consider Two Reorganization Plans

LAGRANGE, GA.—Stockholders of Callaway Mills last month received notice calling a special meeting to consider and act upon two matters, recommended for acceptance and adoption by the company's board of directors. These are: (1) an offer from Callaway Community Foundation to purchase all of the land, buildings and machinery and equipment of Callaway Mills, located in Georgia, and all equipment in rented premises wherever located; and (2) a plan of recapitalization and reorganization of the company, providing for the issuance of up to 150,000 shares of preferred stock of a par value of \$33 per share with non-cumulative dividends at the rate of \$2 per share per annum. The two proposals, which are independent of each other, will be considered separately at the special meeting of stockholders in LaGrange April 11.

Callaway Community Foundation is a non-profit corporation, organized exclusively for religious, charitable and educational

purposes. This foundation and its predecessors have been assisting with such work among the employees of Callaway Mills for the past 25 years. Callaway Mills operates ten textile plants—eight in LaGrange, one at Milstead, Ga., and one at Manchester, Ga.—and maintains sales offices in New York, Chicago, Boston, Detroit, Akron, and the West Coast.

One condition of the offer is that a mutually agreeable lease be consummated under which the foundation would rent the property, or parts thereof, to Callaway Mills. Under such lease Callaway Mills, as tenant, would continue to operate the various mills as heretofore. In the recommendation to stockholders, the directors of Callaway Mills state it is their judgment that acceptance of this offer would contribute to the eventual benefit of the employees of the mills, the communities in which the plants are located, and the stockholders of Callaway Mills; lead to the eventual further

improvement of the financial "quick position" of Callaway Mills; tend to further improve the relationship between Callaway Mills and its employees; and lessen the problems of management by helping to maintain and further develop a close feeling of mutual interest between the management and the employees of the company.

The 150,000 shares of preferred stock to be issued if the stockholders approve the proposed plan of recapitalization and reorganization would be the first stock of this description to be issued by the company. The preferred stock would be offered in exchange to holders of the existing common stock, share for share. The \$2 dividend would be payable from the net profits of the company or surplus, and would be cumulative only to the extent of the net profits of the company, up to \$2 per share (after taxes and all other expenses) in each fiscal year. The call price of the preferred stock would be \$35 per share.

HILLSBORO, N. C.—Belle-Vue Mfg. Co. hereafter will be represented by Hesslein & Co., New York commission house, it has been announced. The mill, which formerly sold through Iselin-Jefferson Co., manufactures shirtings, play clothes, dress ginghams, cheviots, curtain scrims, upholstery and furniture denims. The mill employs 275 people.

WINNSBORO, S. C.—The Public Housing Administration has approved plans to send 50 family trailer units to Winnsboro for the use of workers in the Winnsboro Mills, subsidiary of the United States Rubber Co. The company is to furnish the site and facilities for the trailers.

GASTONIA, N. C.—Firestone Tire & Rubber Co. marked with appropriate ceremonies the tenth anniversary of its operations in Gastonia on April 2. As a feature of the program 49 employees who have been associated with Firestone for a decade were presented ten-year service pins; these 49 are the first group of 252 who will receive the pins during the balance of 1945. A message from John W. Thomas, chairman and directing head of Firestone Tire & Rubber Co., was read by Harold Mercer, general manager of the Gastonia plant.

CHARLOTTESVILLE, VA.—Employees of Frank Ix & Sons, Inc., were honored for completing 729,000 man-hours of work without a single lost-time accident in a program here March 20. Principal speaker was Maj. W. B. Davis, director of the division of statistics and accident prevention of the Industrial Commission of Virginia. Certificates of awarded was presented workers by Albert T. Warner of Richmond, resident engineer for the Liberty Mutual Insurance Co. The mill, manufacturer of silks and rayons, received its third Army-Navy "E" award Sept. 11, 1944.



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Promotions, Resignations, Elections,
Transfers, Appointments, Honors,
Notes on Men in Uniform, Civic
and Associational Activity

PERSONAL NEWS

John Goldstein, treasurer and a director of Stein, Hall & Co., Inc., New York, will retire from active business July 1 after 37 years with the firm. He joined Stein, Hall in 1907 as a shipping clerk. He will be available in a consulting capacity while in retirement.

Fessenden S. Blanchard, former president of the Textile Research Institute, has been appointed director of marketing for Thompson & Lichtner Co., Inc., with headquarters at the Boston office of this consulting management engineering firm. Mr. Blanchard thus discontinues a long association with textiles to undertake work involving other industries as well, dealing particularly with consultation work on post-war distribution problems, including sales management, advertising, merchandising and sales promotion.



W. E. Clark, left, has been promoted to assistant general manager of the textile division of United States Rubber Co. He has been associated with the company since 1931 and has had numerous assignments at its Southern plants. He was formerly production assistant to H. Gordon Smith, divisional general manager.

Arthur Besse has been re-elected president of the National Association of Wool Manufacturers. Thomas G. Sheehe of Chatam Mfg. Co., Elkin, N. C., has been added to the board of directors.

The "E" Parade

The Army-Navy "E" for continued excellence in war production has been presented for the second time to the Cedartown and Rockmart, Ga., plants of Goodyear Clearwater Mills. The Calco Chemical Division of American Cyanamid Co. at Bound Brook, N. J., has received its fifth award, and a fourth white star has been added to the "E" pennant. The Jeffersonville (Ind.) Army Quartermaster Depot has also won a fifth award.

Latest Southern textile plant to be presented an award is Denison (Tex.) Cotton Mill Co. Acme Spinning Co., Belmont, N. C., was scheduled to receive the military pennant April 7.

J. M. Shelton, formerly vice-president and treasurer, has been elected president of Robert & Co., engineering firm of Atlanta, Ga. L. W. Robert, Jr., has become chairman of the board. Three new vice-presidents are A. G. Stanford, C. E. Doughtie, Jr., and C. J. Shannon.

J. J. Duffy, Jr., has been named assistant sales manager of Pennsylvania Salt Mfg. Co., Philadelphia. He has been associated with the company since 1937.



Clarence R. Howe, left, has been elected president and treasurer of U.S. Bobbin & Shuttle Co., Lowell, Mass., succeeding Thomas A. Francis. He has been associated with the textile industry for more than 40 years and was previously vice-president in charge of his company's sales. Walter J. Connolly has been named chairman of the board of directors, Edward L. Martin vice-president and William J. McGeough general manufacturing manager.

Fred L. Wilson, assistant superintendent of Cannon Mills Co. Plant No. Four at Kannapolis, N. C., has been named superintendent of Plant No. Two at Concord, N. C., succeeding the late F. R. Shepherd. Ray Cashion succeeds Mr. Wilson at Plant No. Four.

Gardiner Hawkins is resigning as vice-president of Deering Milliken & Co., Inc., to become executive director and treasurer of the Rayon Producers Group. He will assume new duties upon completion of an assignment as textile price executive for the Office of Price Administration. He has been with Deering Milliken since 1937, and previously was secretary of Judson Mills at Greenville, S. C.

L. A. Corriher, president of Corriher Mills Co. at Landis, N. C., has been given an unopposed nomination as mayor of Landis.

Sanford L. Cluett, vice-president of Cluett, Peabody & Co., has been selected as the 1945 winner of the Longstreth Medal of the Franklin Institute "in view of the fundamental nature and mechanical ingenuity displayed in the development of the process for the pre-shrinking of woven fabrics, known as Sanforizing." It will be awarded April 18 at the annual medal day ceremonies of the institute at Philadelphia.

New trustees recently named to two-year terms as trustees of the University of North Carolina include John W. Clark, president and treasurer of Locke Cotton Mills Co. at Concord and Randolph Mills, Inc., Franklinville; Henry A. Lineberger, secretary and treasurer of Belmont Throwing Co., Belmont; and Kenneth S. Tanner, president of Stonecutter Mills Co., Spindale.

W. F. Howard, Jr., formerly assistant superintendent of the Lyman, S. C., plant of Pacific Mills, is now assistant superintendent of the company's Granby plant at Columbia, S. C. He succeeds Lamar Moore, now assistant superintendent of the Richland plant, who in turn replaced Harry Shealy, transferred to the Olympia plant. George Kay, formerly assistant superintendent of the Olympia plant, has accepted a position at Knoxville, Tenn.

Henry J. Littlejohn, Jr., has been appointed a service engineer in the Carolinas for the mechanical sales department of Dayton Rubber Mfg. Co. Prior to service in the present war and a subsequent honorable discharge, Mr. Littlejohn was associated with Steel Heddle Mfg. Co. and J. E. Surrine & Co. His principal activity will be servicing textile mills with Dayton V-belt drives for power transmission.



William M. Fraser, left, was elected to the operating committee of Farrel-Birmingham Co., Ansonia, Conn., at a meeting of stockholders March 20. Farrel-Birmingham recently negotiated the purchase of Atwood Machine Co. and will continue to build Atwood textile machinery at the Stonington, Conn., plant. Mr. Fraser has assumed the duties of general manager of the Atwood division, as previously noted. He has been associated with the textile industry since 1919.

Burton F. Mitchell has been promoted from superintendent of mercerizing to assistant vice-president and general manager of manufacturing by American Yarn & Processing Co., Mt. Holly, N. Y.

WITH THE GOVERNMENT — A. E. Warren, superintendent of Appalachian Mills Co., Knoxville, Tenn., is a member of the American textile and clothing mission now in France. . . . Edwin R. Metcalf has been appointed deputy director of the War Production Board's textile, clothing and

—(Continued on Page 48)

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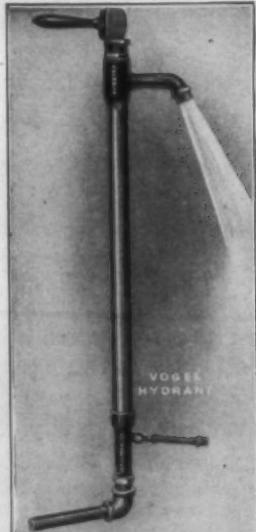
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Textile Industry Eyes Significant Washington Activity

(Continued from Page 26) — board approval, and possibly upon a decision by the economic stabilization director.

In another OPA development in Washington which directly affects the cotton textile industry and which touches upon the wage controversy, OPA Administrator Chester Bowles appeared before the Senate Banking and Currency Committee March 21 and outlined a new policy adopted by his agency for the administration of the Bankhead-Brown amendment to the Stabilization Extension Act. The new policy provides for (1) the rollback of \$45,000,000 of interim price ceiling increases previously granted under the Bankhead amendment, which have now been found to be excessive; (2) the adoption of an escalator clause by which, beginning April 15, the price ceilings of cotton goods will be adjusted periodically to conform to fluctuations of raw cotton prices; and (3) the absorption by the cotton textile mills of the wage increases as recommended by the War Labor Board. This latter portion of the policy was not stated in so many words, but Mr. Bowles indicated that the new policy will require the mills "thereafter to absorb increases in prices, other than cotton costs, so long as this does not have a restrictive effect on the cotton market or interfere with the ability of the mills to continue to pay parity prices for cotton."

In enlarging upon these provisions, Mr. Bowles said: "Price control in the textile and apparel field cannot be administered on the basis of constant or automatic fluctuations in the prices of basic materials. The foregoing plan for periodic revision represents the utmost which appears to be administratively feasible. Since the plan provides only for periodic revision, it cannot eliminate the whole of the windfall now being enjoyed by the mills. It will greatly reduce this windfall, however. To this extent it will remove the basis for the criticism which has been directed against this aspect of the amendment." Previously Mr. Bowles had referred to the "huge windfalls" reaped by the mills which purchased cotton at a price below parity while parity was reflected in the prices of the items manufactured.

Dr. C. T. Murchison, president of the Cotton-Textile Institute, Inc., took exceptions to Mr. Bowles' statement that the cotton textile industry has made "huge windfall" profits through the amendment. Mr. Bowles had said that the mills in 1944 had made profits of \$120,000,000, "much of it at the expense of cotton growers," and went on to predict that the mills in 1945 would make a windfall profit of \$80,000,000. Dr. Murchison, in a letter to Senator Owen Brewster, head of the congressional committee before which Mr. Bowles appeared, vigorously attacked both assertions, declaring: "During the year 1944 the industry consumed 9,698,214 bales. In the last half, consumption amounted to 4,751,403 bales. Of this amount only 63.7 per cent were covered by ceiling prices based on cotton costs at parity. We can see no justification in a profit estimate based on an entire year's operation when the new price schedules were effective on only 63.7 per cent of operations in the second half of the year.

"The same doubts may be raised against OPA's estimates concerning 1945 cotton profit. Between July and December, 1944, during which parity advanced from 21.08 cents to 21.20 cents, prices received by farmers ranged between a low of 95.6 per cent and a high of 100.8 per cent of parity;

the small difference between prices received by farmers and parity prices would support the conclusion that mills have already paid, and are now paying, premiums above parity for many grades and staples. It is obvious that cotton profits attributable to the amendment are greatly exaggerated in OPA's estimates as to 1944 and 1945."

In computing profits to the industry under the net worth formula, OPA, according to Dr. Murchison, changed its method of computation while the debate was in progress. He said that the OPA first informed the industry that the increase in net worth since the 1936-39 base period amounted to 25 per cent and when that figure was challenged by the industry OPA stated that the rise was 42 per cent. The OPA estimate, he added, was based on data that was not available to the industry.

Following Dr. Murchison's letter to Senator Brewster, the Cotton-Textile Institute, on April 3, recommended to the Senate Banking and Currency Committee that the Bankhead amendment, as it now stands, be preserved intact for the duration of the war and for as long afterward as necessary. The institute also urged the committee that in its report to the Senate it incorporate a statement to the effect that in approving the Bankhead amendment it does so with the proviso that the parity provisions of the amendment be continued as formerly and that the standards of the Stabilization Act be applied separately, item by item.

Latest advices from Washington in regard to War Production Board activities indicate that this agency, in order to be prepared for both an early collapse of German resistance or an unexpected prolongation of the war into the late summer, is now working on two sets of new textile orders. In the event that the war in Europe continues into June or July WPB will continue its stringent controls and possibly tighten some of them. Should the German collapse within the next few weeks, plans will be ready for the partial reconversion of certain looms to the manufacture of fabrics normally produced, now barred by the military's demands. The exact nature of the prospective changes in WPB policy have not as yet been divulged.

High Twist Plied Yarns Ceilings Fixed

Manufacturers of high-twist plied yarn used to make loom harnesses and plied all-cotton elastic bandages have been explicitly authorized to use as ceilings the highest prices they charged in March, 1942, the Office of Price Administration has announced. The action, effective April 7, formally exempts sales of these yarns from the provisions of the regulation covering most other combed cotton yarns.

Because of the highly specialized techniques used in their manufacture, it was never intended that they should be included in the combed yarn price schedule, OPA explained. Although this fact was informally stated in 1942, it has never before been the subject of a formal price action. Since all of the production has previously been sold at or below March, 1942, "highs," the action will have no effect on the price level, OPA pointed out.

Nylon for B-29 Tires

(Continued from Page 24) — truck tires makes the continued use and development of nylon for tire cord a paramount must.

Experimentation by scientists and chemists of the company is responsible for the use of nylon fabric and cord in many items which have been born of war, but designed for long and efficient use for civilian consumption. Further experimentation now being conducted in these same laboratories indicates that the use of nylon cord and fabric in hundreds of civilian products, heretofore made of other materials, will be a post-war actuality. Owing to its lightness, the use of nylon has already been adopted for tent fabrics where reversibility and camouflage qualities are highly desirable. The coated material has been used to manufacture poncho material and for bullet-sealing gasoline tanks in all types of war planes. Its use in commercial planes is also of importance for the tensile strength of this material adds durability and length of service to the cells and reduces replacements to a minimum.

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Write "Box D-35,"
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Textile technician with theoretical and practical experience on carding and spinning machinery. Permanent job with good post-war possibilities. Traveling required. State salary and draft status.

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WANTED—Job as Overseer Spinning; 15 years experience weaving and hosiery yarns. Now employed but for personal reasons want to make change. Age, 41; draft status 3-A; excellent reference. Address "Box 4," care Textile Bulletin.

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POSITION WANTED—Overseer Carding and Spinning; 20 years' experience, 54 years of age; now employed as overseer carding and spinning, can change on short notice. Can furnish the best of references. Prefer job in Alabama or Georgia. Address "U-3," care Textile Bulletin.

POSITION WANTED—Have had 22 years' practical mill experience; cotton and waste, twines and yarns. 10 years as General Overseer. Would like to contact mill needing as Assistant Superintendent or General Overseer. Address "Box 13," care Textile Bulletin.

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Cotton Goods Market

Government needs only have been getting the attention of gray goods sellers during the past fortnight and the volume of goods let out to meet these demands was substantially below that called for. The acute scarcity of cloth which has been evident in the market for many months appears to have become more pronounced. Many are of the opinion that this condition will become all the more aggravated during the next few months, based upon commitments already made and calls expected from the various military agencies.

Uncertainty stemming from the possibilities of additional heavy demands for goods, threat of a reduction in ceiling prices, and production difficulties that may arise, have all tended to influence mills to shorten their selling periods.

"Wait and see" continues to be the watchword in all sections of the gray goods market with regard to future governmental action on the much-discussed 317-A and M-388. There seems to be a fairly general opinion in Worth Street that the industry is in for some serious production dislocations if the much-discussed roll-back of prices becomes law. Many merchants feel that should a move of this kind be made, there will be less and less production as a result. Furthermore, these same quarters feel that the culmination of the war in Europe will not alter the situation in respect to pricing or manpower immediately thereafter. Mills for the most part are not committing themselves more than 30 days ahead.

Uneasiness over the threat of a rollback in print cloth prices by OPA and the possibilities that such a movement may be extended to other gray goods categories now on an interim basis has been widely evident in the Worth Street market. Sellers, faced with the prospects of being forced to accept a reduction in ceilings, shortened their forward selling position pending definite word from Washington and a clearer understanding of their status.

Actual trading in the gray goods market is generally restricted in both scope and volume. Inquiry, however, continues strong in every section of the industry. In view of the dearth of trading, many merchants were inclined to speculate on the many influences that show their effects on the market. Uncertainties in practically every direction, from government regulations, possible early peace, to supply and demand were all cited as having some effect on the movement in the next few months.

The prevalence of AA-1 ratings in the market continues heavy, and some selling houses indicated that all they have to do is simply offer some goods before they are swamped with priorities. Many noted that there is no incentive whatsoever to sell, nor is there an incentive to increase production, in view of the threats hovering over the industry.

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Cotton Yarns Market

Activity in cotton yarn sales continues to be hampered by decreased production and increased government requirements for all counts. The recent War Production Board order directing mills to reserve at least 50 per cent of their poundage of combed sliver (for critically needed yarns going into military fabrics) has gone into effect, and the market situation is now even more confused.

The Census Bureau has reported that the cotton spinning industry operated during February at 122.2 per cent of capacity, on an 80-hour week basis, compared with 119.7 per cent during January this year and 123.2 per cent during February last year. Active spindle hours included: in cotton-growing states, 7,521,227,265, or an average of 427 per spindle in place; and in the New England states, 1,257,021,903 and 257.

As a means of channeling the available short supply of certain carded cotton sale yarns in counts of 20's and coarser into the most essential military and civilian end uses by a further tightening of controls, the War Production Board has amended Direction 9 to General Conservation Order M-317 (Restrictions on Sale and Delivery of Certain Carded Cotton Sale Yarn in Counts of 20's and Coarser and on Use of All Carded Cotton Yarn and Roving in Counts of 20's and Coarser). At the same time, WPB provided some relief to manufacturers of tufted, shag or chenille fabrics or products who were prohibited from incorporating carded cotton yarn or roving in counts of 20's or coarser into any of these fabrics or products as of Jan. 15, 1945.

The amended direction restricts from March 24 through June 30, 1945, deliveries of any carded cotton sale yarns (excluding seconds) produced under paragraph (d) (1) or (d) (2) of Order M-317B of such descriptions and counts as fall within Group Nos. One or Three of the sale yarn production schedule of that order (carded single or ply yarns other than machine knitting yarns in counts of 20's or coarser) except: (1) to fill an order bearing a preference rating assigned on Form WPB-2842; or (2) to make delivery before May 1, 1945, on an order placed before March 29, 1945, which order must be either a direct order of the Army, Navy, United States Maritime Commission or War Shipping Administration, or an indirect order for either of these agencies, bearing a purchaser's certification. This means that after May 1, 1945, no producer of these yarns may fill a direct or indirect military or civilian order that does not bear a rating assigned on Form WPB-2842. Cotton Goods

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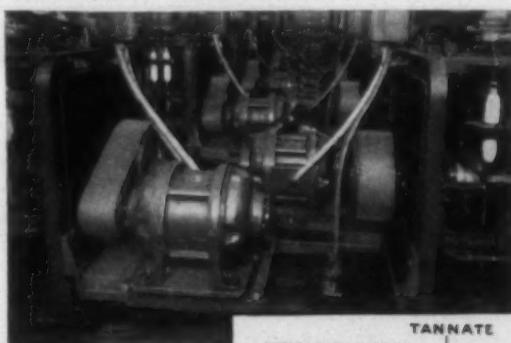
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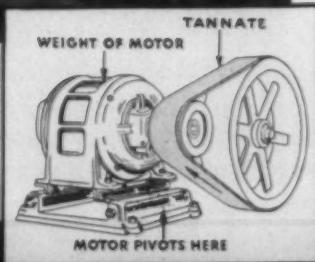
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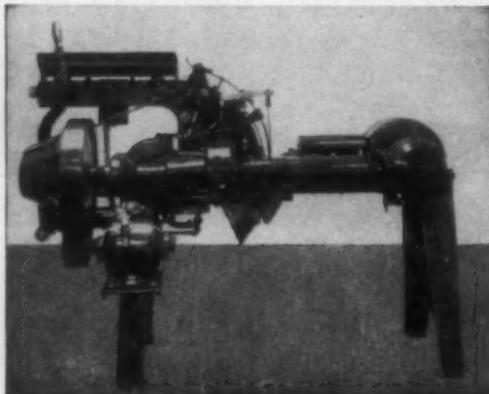
Supplies hydraulic force to spread the drums on spinning, twister and spooler frames, thus making it easy to remove bearing and connecting shaft without damage to the cylinder or cylinder head.

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Geo. Thomas & Co. . . Manchester, England—European Agt.

Better Quality Finished Goods Through Informative Test Reports

(Continued from Page 26)—it is omitted from a formula. A dyer thus can determine whether the fault lies in just one poor dyestuff shipment or in products of certain suppliers. Quite often the dyer will find it necessary to omit the types of dyes already selected, and secure from other sources dyes suitable to the rigid specifications demanded.

When testing spun rayon or spun rayon-cotton fabrics all dyed samples must be run by the laboratory in sufficient amount so that a complete range of tests may be made from the same sample. The types of colors to be tested are mostly selected directs, developed and special aftertreatable directs. (Test methods for fastness requirements needing vats and naphthols will be discussed later.)

Strength of Dyeings—Pastel, medium and heavy shades.

Resin Treatments—Standard urea formaldehyde and melamine resins to be applied and cured.

Cation Softeners—Softeners should be applied in the different types of baths: slightly alkaline with pH of eight or nine; practical neutrality with pH of six or seven; and slightly acid with pH of four or five.

The most practical and desirable fastness tests (before and after various treatments) are:

Light—Ten to 80-hour exposures on Fadometer.

Wash—Use A.A.T.C.C. No. One (105° F., 0.5 per cent soap, 30 minutes); No. Two (120° F., 0.5 per cent soap, 30 minutes); No. Three (160° F., 0.5 per cent soap, 0.2 per cent soda ash, 45 minutes). These tests are to be made with rubber or stainless steel balls. Attach to each wash test a swatch of especially-woven fabrics containing stripes of the different natural and synthetic fibers.

Crocking—Make wet and dry tests, using standard A.A.T.C.C. Crock-meter.

Perspiration—Use standard A.A.T.C.C. acid and alkaline tests on the previously described especially-woven fabrics.

Goods containing dyed acetate rayon are subjected to other tests such as the standard A.A.T.C.C. atmospheric gas exposure test, or subliming tests made necessary resin treatment and curing of goods at high temperature. Many of the acetate colors tend to sublime onto adjacent fibers at temperatures over 250-300° F. These tests will be taken up along with others in a later article.

Textile Mission Goes To Brazil

A textile mission from the Combined Production and Resources Board visited Brazil during March to meet Brazilian government representatives and members of the Brazilian cotton textile industry, CPRB has revealed. The object of the mission was to follow up the discussions on the world cotton textile position initiated last May when a Brazilian textile mission visited Washington.

At the 1944 conference it was indicated that the government of Brazil was prepared in the interests of the war effort to take steps to make available for export about 500,000,000 yards of cotton textiles during the 1944-45 period. As a result of these initial talks Brazil has arranged to supply in cotton textiles a part of her national contribution to resources of the United Nations Relief and Rehabilitation Administration. The CPRB textile representatives went to Brazil last month to discuss how Brazil can give further help to countries in urgent need of textile supplies.

Brazilians Inspect Philadelphia Institute

The Brazilian Educational Commission, which is touring the United States studying methods of teaching in United States scientific schools, has selected the Philadelphia Textile Institute for inspection on education in textiles. Their interest was particularly directed to the high standard of entrance requirements, including psychological and aptitude tests, the scope of instruction, and to the methods by which this textile college has been able to co-ordinate the teaching of theory and principles with practical instruction in the arts of textile manufacture.

The visitors were met by Dean Richard S. Cox and by Alban Eavenson, vice-chairman of the board of governors of the institute. In a hurried inspection they were shown how the formal classroom instruction in each department was tied in with the actual fabrication of the goods. How, for instance, at the outset the student is set to work upon a hand loom, thus paralleling his classroom instruction with actual practice.

It was pointed out that it was not the intent of the school to produce skilled operators, but to drive home a thorough acquaintance with the underlying principles by actually doing every operation that enters into the making of textiles. This embraces the making of designs, the selection of colors, the dyeing of yarns or completed fabrics, the spinning, blending, finishing and testing of the various fibers and yarns and fabric formation, and the manipulation from the cotton lap or the bag of wool to the marketing of the finished products.

Considerable time was spent in the chemical laboratories at the institute and in studying how colors and patterns were

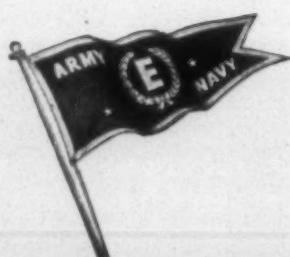
applied to various types of fibers. They were impressed with the fact that the institute in its training for executives insisted upon actual manual practice and first hand experience in the processes and on the machines, and that this was closely integrated with classroom instruction.

Textile Blending Booklet Is Published

A new booklet called "Modern Textile Blending" has been published by Newnan (Ga.) Cotton Mills, pioneer developers of blended yarns, which is said to cover in print for the first time the subject of creating new fabrics by textile blends. The booklet is described as demonstrating how blended yarns create characteristics and qualities in fabrics which cannot be found in fabrics made of a single fiber. Some of these characteristics and qualities are coolness, wrinkle resistance, porosity, warmth without weight and stability. A long list of textile and apparel products that are made of blended products are included in the publication.

A new lighting products booklet containing useful information for industrial and commercial users of lighting is available from Sylvania Electric Products, Inc., 60 Boston St., Salem, Mass., on request. The booklet contains comprehensive information about industrial, commercial, portable and inspection type of fluorescent fixtures; fluorescent lamps, starters and lamp holders. Incandescent types listed include daylight lamps; large wattage lamps; vibration and rough service lamps; three-light lamps; floodlight and spotlight lamps; tubular lamps; lumline lamps; sign and decorative lamps; and those for six, 12 and 30-volt service.

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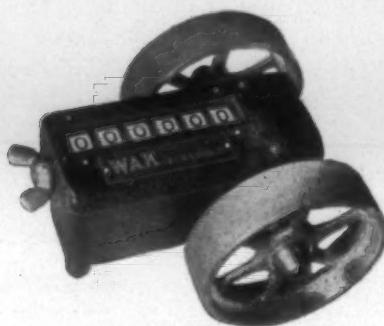
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PERSONALS

(Continued from Page 38)—

feather bureau. . . J. Holmes Davis, chairman of the board of Spofford Mills, Inc., at Wilmington, N. C., has been named a regular industry member of the National War Labor Board. . . E. R. Rabb, sales director of Columbia Mills, Inc., New York, has been elected chairman of the Office of Price Administration's window shade manufacturers industry advisory committee. W. H. Regnery of Chicago, president of Joanna Textile Mills Co. at Goldville, S. C., is vice-chairman of the committee.

J. Alden Miller, formerly superintendent in charge of plant and manufacturing for Louisville (Ky.) Textiles, Inc., has been made secretary of the company. H. Stewart Redman, production manager since 1936, has succeeded Mr. Miller.



Victor H. Berman, left, president of Onyx Oil & Chemical Co., Jersey City, N. J., has been re-appointed for a third term as New Jersey representative on the Interstate Park Commission.

WITH THE MILITARY—Maj. Harold Briggs of Chatham Mfg. Co., Elkin, N. C., has been awarded the Bronze Star while serving as provost marshal of an Army infantry division in Germany. . . Lieut. Charles A. Cannon, Jr., son of the president of Cannon Mills Co., Kannapolis, N. C., has been reported missing in the China-Burma-India theater since March 10, where he was serving with the Army Air Forces. . . Capt. Albert M. Whisnant, Jr., sales manager for Stonecutter Mills Co. at Spindale, N. C., prior to entering the Army, is now stationed in Washington after seeing service in Europe. . . William Roy Ivey, Jr., son of the Western North Carolina DuPont dyestuffs division representative, has been promoted to the rank of first lieutenant while serving with the Army in the Philippines. A younger brother, Seaman Ben M. Ivey, is on submarine duty somewhere in the Pacific area.

Charles S. Northen, Jr., has resigned as vice-president of Avondale Mills at Sylacauga, Ala., effective May 1, to join Sloss- Shefield Steel & Iron Co. at Birmingham. His career in textiles has included positions with Exposition Cotton Mills at Atlanta and the old Hunter Mfg. and Commission Co. He joined Avondale in 1929 and has been in charge of yarn sales for the past few years. At present he is head of the Carded Yarn Association and during the war has been very active in work for government agencies in Washington.

Lewis F. Sawyer, in charge of the Cotton Textile Institute's statistical department for the last three years, has been named director of the division of industrial accounting, a new service of the institute. The new division will assist member mills in meeting accounting problems arising from income and excess profits taxes, renegotiation of government contracts and price ceilings. It

will co-operate with accounts employed by individual mills by developing statistical and economic data required to cope with complex tax rates and changing production conditions.



Dr. W. B. Pings, left, organic chemist, recently joined the staff of Arthur D. Little, Inc., industrial research organization at Cambridge, Mass. He was previously with E. I. du Pont de Nemours & Co.

Harry C. Jackson, Burnet Valentine, George W. Retz and Francis J. McKenna have been elected vice-presidents of A. D. Jilliard & Co., New York.

Groups Meeting At N. C. State College

After having been postponed one week, the spring meeting of the Industrial Fiber Society will be held at the school of textiles, North Carolina State College, Raleigh, on Friday, April 13. In accordance with Office of Defense Transportation recommendations attendance will be limited to not more than 50 out-of-town members, and admittance cannot be obtained without prior approval.

John P. Elting, president of the I. F. S., has announced the following addresses and discussions for the program: "Analysis of Equilibrium Moisture Data," by Prof. John C. Whitwell, department of chemical engineering, Princeton University; "Some Urgent Textile Problems and Discussions," by Lieut.-Col. S. J. Kennedy, U. S. Quartermaster Corps, Washington, D. C.; "Fundamentals of Radiant Drying of Textile Material," by Prof. Richard Wilhelm, department of chemical engineering, Princeton University; "Stress Measurements in Textile Materials," by H. Hindman and Mr. Krook, Slater Memorial Laboratory, Massachusetts Institute of Technology.

On the following day, Saturday, April 14, the college school of textiles will be host to a regional meeting sponsored by the Textile Research Institute, at which time various textile problems will be discussed. Again attendance of persons living outside the commuting area of Raleigh will be limited to 50 to conform with ODT regulations. Dean Malcolm M. Campbell of the N. C. State College school of textiles will serve as chairman, and the following talks will be heard: "Abrasion Tests for Textiles," by Dr. A. C. Walker, Bell Telephone Laboratories;

"Methods of Increasing the Productivity of Cotton Cards," by Prof. Elliott B. Grover, N. C. State College school of textiles; "Practical Application of a New Analysis of Equilibrium Regain Data for Textile Fibers," by Prof. John C. Whitwell, Princeton University; "Infra-Red Drying of Textile Materials," by Prof. Richard Wilhelm, Princeton University.

A.C.M.A. Meets in Atlanta April 25

The annual meeting of the American Cotton Manufacturers Association will be held at the Biltmore Hotel, Atlanta, Ga., April 25, according to announcement by Harrison Hightower of Thomaston, Ga., president of the association. The board of government will have a dinner meeting the evening of April 24, and the meeting proper for members of the association will get underway at 11 o'clock Wednesday morning.

Because of war conditions, attendance will be limited to 50 persons. The selection of those who will attend will be made through a plan which calls for reservations for the 36 members of the board of government, and for the re-

maining 14 to be selected pro rata on a spindleage basis in the various states. Where there are state associations, the American association will ask these associations to select those who are to attend, over and above the members of the board of government. A careful check will be made to ascertain whether any members of the board of government will be unable to attend, and if such be the case, their places will be filled by representatives from the several states, selected on the spindleage basis.

Flammability of Consumer Textiles To Be Tested

Because of the fire hazard involved in the use of certain types of consumer textiles and because of recent legislation governing the manufacture and sale of textiles which are flammable, the American Association of Textile Chemists and Colorists has, at the request of the National Retail Dry Goods Association, formed a committee to investigate current fire-hazard laws and to develop a flammability test for consumer textiles. Members of the committee are F. Bonnet, American Viscose Corp.; H. F. Hager, General Dye-

stuff Corp.; Charles W. Dorn, J. C. Penney Co.; Edward Young, Princeton Knitting Mills, Inc.; Charles L. Simon, Industrial By-Product & Research Co.; Cameron A. Baker, United States Testing Co.; and H. E. Wilde, Merck & Co., Inc.

At a meeting of the committee held March 27 in New York, various test methods were discussed and specifications for a suitable test apparatus were tentatively agreed upon. Apparatus of this type is now under construction for use in several laboratories which are co-operating in the study.

Memphis Seeks Cotton Mills

The Chamber of Commerce of Memphis, Tenn., has published a pamphlet in which are advanced arguments why cotton mills would benefit by establishing in Memphis for post-war trade. The text of the pamphlet is based upon findings of the Industrial Research Committee of the Chamber of Commerce.

In view of heavy military requirements for yellow iron oxide pigments, the War Production Board has placed this commodity under allocation.



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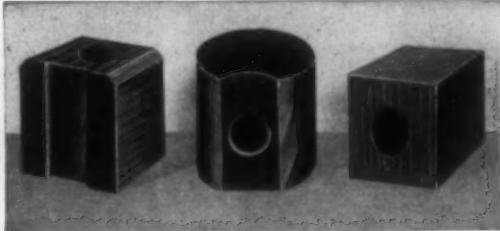
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If It's Made of Wood, or Partly Wood, We Can Furnish It

**Care, Operation and Maintenance Of
Four-Roll Drawing**

(Continued from Page 20)—not been drafted down, also the larger diameter third and fourth lines of rolls give more grip to slivers and reduces friction slip of top rolls (when using cushion rolls), resulting in a more evenly drafted sliver.

A considerable number of experiments have been made on roll setting. All roll settings are governed by the length staple and grade of cotton used. Also speeds have to be taken into consideration in roll settings. The following settings, with front roll producing not more than 110 feet per minute, have been found satisfactory:

Carded stock:	first to second roll—staple 3/16"
	second to third roll—staple 7/16"
	third to fourth roll—staple 7/8"
Combed stock:	first to second roll—staple 5/32"
	second to third roll—staple 7/16"
	third to fourth roll—staple 11/16"

Proper gauges designed to fit into roll stand slides should be used for setting drawing rolls. Sliver trumpets should be checked every 60 to 90 days for wear in trumpet holes, and adjustment of trumpet to calender rolls. The distance from bottom of trumpet to bite of calender rolls should be slightly over the length staple of cotton used. The setting of the trumpet is very important, if not kept properly set it will cause uneven sliver.

The following table is recommended for trumpet holes:

Finisher Drawing Sliver			Breaker Drawing Sliver		
Gr. Per Yd.	Dia. Holes	No. Drill	Gr. Per Yd.	Dia. Holes	No. Drill
45	.120"	31	45	.124"	30
50	.125"	30	50	.130"	29
55	.130"	29	55	.136"	28
60	.140"	28	60	.143"	27
65	.145"	27	65	.143"	26

Changes in trumpet bore from those shown in the above table may be necessary due to the different type of cotton. Some cotton is rougher and bulkier than others and may require a larger hole. Combed sliver requires a smaller hole than carded sliver. Gauges designed for the purpose of checking trumpet holes and trumpets to calender rolls should be used.

The purpose of calender rolls is to form the sheet of fibers delivered from the front roll into a compressed sliver strong enough to permit it being drawn from the can without breaking or stretching the fibers. It is, therefore, necessary that the calender roll be kept in good condition at all times. The calender roll covers should be cleaned each doff, and calender roll gears checked for choked cotton in gears, each 40 operating hours, to insure smooth running rolls. The rolls themselves should be cleaned with hard waste, each week of 80 hours, to remove gum and rust from the rolls.

Compression calender rolls, now available, are equipped with ball bearing and spring pressure, which compress the sliver and which will increase the amount of sliver in 12-inch can from 20 to 30 per cent. This compressed sliver causes no trouble in drafting on the following processes. This can be further improved by having the can table turn in the same direction as the tube gear, instead of the opposite direction, which has a tendency to put additional sliver in the can. This will lay the sliver smoother, and have less tangled sliver pulling from the cans. This change of can rotation can be made on drawing in place by changing the

coiler shaft gear on the opposite side of the upright shaft driving the can table.

Cleaning and lubrication of drawing is as important to good work as the physical condition. The following has been found a satisfactory schedule for this purpose: when the cans are full and replaced with empty cans, before starting the drawing the top and bottom clearers should be picked; the roll beam underneath the steel rolls should be wiped clean with waste; also the top calender roll covers, and the back of the drawing should be brushed off; the head and foot ends, top roll weights, and line shaft should be cleaned each shift. Nothing will lower the quality of drawing and cause more slugs and lumps than a dirty drawing frame.

Dry top rolls will cause bad work also. Dry calender roll bearings will cause lumpy sliver. Drawing equipped with roll bearing top roll bushings should have the bushings taken out and thoroughly cleaned, and packed with fresh grease every 1,000 operating hours. A medium-weight grease is recommended for this purpose.

Should the drawing be equipped with plain end bushings, these should be oiled once every eight-hour shift. Do not neglect to see that the studs and gears receive adequate inspection and lubrication. Jumpy gears and dry studs are often found to be the cause of uneven or lumpy sliver. For this purpose, 750 to 900 second viscosity machinery oil, such as Gargoyle Bactra BBX or Texaco Aries or Ursa, will be a satisfactory lubricant.

Front bottom roll bearings should be oiled once each shift; back bottom roll bearings, once each 40 hours. Top and bottom calender roll bearings should be oiled once each

eight-hour shift; all fast-running bearings and gearing in both head and foot end should be oiled once each eight-hour shift; all slow-running bearings (100 r.p.m. or less) should be oiled each 40-hour shift.

Top rolls should be checked for lap-up or bad rolls. When top rolls are cleaned, all lap-ups and bad rolls should be removed. At that time, all top rolls should be taken out, bottom rolls cleaned, and bottom roll bearing cleaned and packed with new grease once each week, on three-shift basis.

Top roll bushings should be cleaned on the outside each 24 hours.

Most of the suggestions that have been made would be in vain unless special attention is given to the importance of keeping oil holes in gears and bearings clean at all times to allow the proper amount of oil to get to the running parts. A good grade of oil should be used on a regular oiling schedule by well trained, competent operatives.

Allis-Chalmers Mfg. Co., Milwaukee 1, Wis., has prepared a manual for the supervisory force of the company which is designed to aid in the major problem of rehabilitating war veterans in industry. This manual is one of the first of its kind and any interested group or employer may secure a copy by writing to the company. In order to have the manual as complete and psychologically sound as possible, the assistance of the Wisconsin Society for Mental Hygiene was enlisted. This assistance, plus the experience the company has already gained in employing more than 1,100 veterans of this war, makes the manual a unique contribution to the veterans' rehabilitation program.

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Textile Testing Course Is Scheduled

The refresher course in textiles and testing techniques held yearly in the main laboratories of the United States Testing Co., Inc., Hoboken, N. J., will be repeated this summer, beginning July 9 and extending through July 27. Applicants for the course are required to have some elementary textile training; those who qualify may receive applications from the offices of the company in Hoboken.

Students receive specific instructions in fiber, fabric and cloth analyses; the origin, identification and nature of natural and man-made fibers such as rayons, casein, vinyon, nylon, fiberglas and soybean; the testing of woven and knit fabrics for thread count, fiber identification and composition, tensile strength, seam slippage, color fastness to light, washing and dry cleaning. Newly developed equipment such as the yarn shift, warmth, snag, fatigue and friction testers, Weather-Ometer, Fluorophotometer and Osmoscope are important parts of the course. Sample swatches of fibers, yarns and fabrics, mimeographed text and special literature are distributed to each student. Emphasis is placed on familiarizing the students with A. S. T. M., United States Government, Army, Navy and other standards. The scope of service tests and their interpretation and use by industry and the consumer is touched upon.

Colleges Get Bequests From Schenck Estate

Bequests both to Wake Forest College and to Gardner-Webb College of Boiling Springs, N. C., were provided in the will of the late John F. Schenck, Sr., of Lawndale, N. C. He was founder of the Lily Mills Co. and head of the Cleveland Mill & Power Co. at Lawndale as well as having interests in other enterprises. Life interests in his estate went to his wife and children. The will provides that when obligations assumed in the will are met, a percentage of his holdings in Lily Mills stocks shall go to the two colleges.

Rohm & Haas Wins Award for Safety

Rohm & Haas, Inc., chemical firm of Philadelphia, Pa., has been awarded the grand prize for its outstanding safety record in the Philadelphia area. The plant cut its accident frequency rate by 72 per cent, with an average of 2,500 employees working around 6,250,000 man-hours during the year. The Philadelphia Safety Council of the Chamber of Commerce made the award.

"Dyeing and Printing Nylon" is the title of the second of a series of booklets on Aridye Pigment Colors for the Fabrics of Tomorrow. This booklet, which has just been issued by Aridye Corp., Fair Lawn, N. J., describes the methods which have been developed for applying resin-bonded pigment dyes to nylon fabrics for military purposes and for post-war civilian uses. The first of the series outlined the dyeing and printing of fiberglas.

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OBITUARY

F. R. Shepherd, superintendent of Plant No. Two of Cannon Mills Co. at Concord, N. C., died suddenly March 15. He was considered one of the outstanding operating executives of the Cannon organization.

Lieut. David Allen, U. S. N. R., vice-president and a director of Southern Friction Materials Co. at Charlotte prior to entering the Navy, was killed in action last month while serving in the Pacific area. Survivors include his wife, two children, mother and two sisters.

Francis Lynch, 64, vice-president and director of Saratoga-Victory Mills, Inc., died March 27 at his home in Gadsden, Ala. Mr. Lynch went to Schuyerville, N. Y., in 1921 to take charge of Saratoga-Victory Mills, and moved with the mills in 1928 when they were transferred to Albertville and Guntersville, Ala. He continued as vice-president and director after the mills were sold recently.

C. J. Story, 74, head machinist for the Arnall Mills at Newnan, Ga., died last month after only a short illness.

Sigmund Odenheimer, 84, chairman of the board of Lane Cotton Mills Co., New Orleans, La., died March 20 at his summer home at Odenheim, near Covington, La. Mr. Odenheimer was president of the mills for 59 years until March 5 when he resigned to take the newly-created post of chairman of the board. He was succeeded as president by his son, J. Freyhan Odenheimer. Born in Odenheim, Germany, he came to the United States in 1880. After working for a while in New York, he went to Alabama and later to Natchez, Miss., as superintendent of cotton mills. In 1886 he became affiliated with Lane Mills as treasurer, being one of the youngest cotton mill executives at that time. He later rose to the presidency, and became a prominent figure in textile circles. He was also intensely interested in civic affairs, holding many offices in different organizations, and from 1925 to 1930 he was president of the International Trade Exhibition. He is survived by his wife, one son, and two daughters.

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Post-war Cotton Spindles

(Continued from Page 19)—of it is in territory now under Allied control; the rest is in immediate danger of being captured, if any plants remain intact following the intensive bombings which always precede Allied advances.

Elsewhere in liberated Europe much of the same confusion is prevalent. No report has been received from American and British authorities as to the current condition of Italian cotton mills in captured areas; it is presumed that production has been resumed in some. Italy's rayon industry, centered mainly at Milan in the northern part of that country, is still dominated by the Germans, although it is reported to have been removed to Germany. The Italian textile industry—what is left of it—is located generally in this area.

With British forces well on their way to liberating all of the Netherlands, some word of the Dutch textile situation should be forthcoming soon. The Netherlands Information Bureau reported last fall that the Germans had dismantled many of the Dutch mills and moved them into the Reich, followed by a switch to German financial control through various manipulations. The pre-war Dutch cotton and linen trade consisted of more than 100 plants, which operated 1,260,000 spindles, employed 32,000 workers and in 1937 produced goods worth \$57,000,000. The woolen industry comprised 96 plants operating 250,000 spindles and 5,760 looms, small by American standards.

Early last fall the State Department reported from Washington that scattered and informal information received up to that time indicated that damage to French and Belgian mills was much less than had been expected. It was pointed out that it would not be correct to state that the textile industry in these two countries was intact, but that the mills were not *destroyed*. France, which in recent times has competed only as a producer of specialty yarns and fine fabrics, is expected to be out of world rayon competition for quite a while. Some plants were destroyed by bombing while others, such as the famous Lyons silk mills, were stripped of their equipment. Belgium, which must import nearly all of its raw materials, is expected to have a tough time getting the textile industry there back in operation. Rehabilitation of the mills there is considered of prime importance, however, not only because its output will be needed to relieve the supply situation, but also because of the social values which will result in putting the civilian population back to work.

At present an important group of American civilian technicians is active in France and Belgium on a three-month assignment to Maj.-Gen. Robert M. Littlejohn, chief of the U. S. Army Quartermaster Corps in the European theatre of operations. The mission includes Amos Stevens of New York (woolens); Walter Montgomery of Spartanburg, S. C., who was also a member of the American mission which surveyed English mills at Lancashire last year; and Joseph Lanier of West Point, Ga. (cottons). It is expected that the group will confine its current activities to France and Belgium, but may later extend the survey to Germany. One member of the party has stated that the increasing resumption of textile production in these three countries is likely to lessen the pressure on American output for the military as well as for displaced persons, and permit greater and quicker concentration on materiel for use in the Pacific theatre.

Production Adjustment Program Announced

The War Production Board has announced a new production adjustment program developed by its production re-adjustment committee and approved by James F. Byrnes, director of war mobilization and reconversion. The new program was formulated in response to Mr. Byrnes' directive of Jan. 20, which established general policies covering war production curtailment.

This directive required J. A. Krug, chairman of WPB, to formulate a plan to assure that (1) government agencies, war contractors and representatives of labor receive advance notice of terminations of war contracts, and (2) the appropriate executive agencies, contractors, and labor representatives consult for the purpose of planning production adjustments that will result in the most effective utilization of released facilities and manpower. The plan applies to both current production adjustments and to those which are expected after the defeat of Germany (the so-called Period 1 adjustments). The production adjustments plan provides administrative machinery necessary to the detailed execution of Mr. Byrnes' directive.

Under the new program, the procurement services are required to notify manufacturing plants of work terminations at least seven days in advance of the cut-off date when the cutback involves more than \$100,000 a month in any one month of the following year.

Firestone Speeds Up Rubber Curing Process

An electronic rubber curing process that is as much as 17 times faster than the conventional steam method is claimed by Firestone Tire & Rubber Co. The process, which has reached the production stage for the first time, is expected to save thousands of man hours and to increase the output of critical war materials 50 to 80 per cent, Firestone officials state. Products which Firestone has cured successfully by processes involving electronics include elastic thread. The electronic method of vulcanizing is not only said to be speedier, but is also said to obtain a better product because electronic heat is more uniform and more easily controlled.

Jobs for Young Workers Analyzed

The Children's Bureau of the U. S. Department of Labor has issued a leaflet, "Advisory Standards for the Textile Industries," which is designed to aid employers in placing their 16 and 17-year-old workers in the least hazardous jobs. The pamphlet points out those jobs or kinds of work relatively safe for youngsters of these ages, as well as those jobs considered too hazardous for them. Copies may be secured without charge by writing to the Children's Bureau, U. S. Department of Labor, Washington 25, D. C.

Taylor Instrument Offers Controller

To assure uniform quality of product, most batch processes require the accurate repetition of a predetermined program involving time coupled with temperature, pressure, flow or liquid level. For this purpose, the Taylor Instrument Companies of Rochester, N. Y., manufactures a time schedule controller about which an eight-page descriptive bulletin has been published. Of special interest to the textile industry is the application of the instrument to size cookings, and piece, yard, package and top dyeing.



A doffer's thoughts on RINGS

Overseers are working more closely than ever with operatives these days to assure equipment being in A-1 condition. Quite often they find opportunities to gain extra production even though machinery is heavily loaded. A change to new DIAMOND FINISH rings often boosts output surprisingly. Encourage your overseers to replace worn rings, and to utilize our Eadie lubricated styles where applicable.

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Price Exemption for Gray Goods Is Extended

The price exemption for four types of gray goods used in the manufacture of wind-resistant, water-repellent, combed oxford cloth for the armed forces has been extended by the Office of Price Administration through April 15, 1945. The exemption for the finished cloth is also extended through April 15.

The action, effective March 27, is being taken pending issuance of maximum prices for these fabrics, OPA said. Military procurement of these heavy constructions of cloth—used to make sleeping bags and shelter tents—and of other constructions of combed cotton cloth is expected to increase soon to a point where the greater part of the fine goods industry will be engaged in their production, OPA added.

The original price exemption for these fabrics already has expired. The new action makes it clear, however, that producers of gray goods are exempt from poundage prices for deliveries made between May 5, 1944, when the exemption first was issued, and April 15, 1945. The action includes a special provision for producers of finished cloth who buy gray goods during an exemption period and then deliver to the procurement agency cloth that is subject to the regulation on finished piece goods. These converters, in computing ceiling prices, are required to use the actual cost rather than the gray goods ceiling as the basic gray goods cost. The provision does not apply to converters who make their own gray goods.

Armstrong Cork Makes Yearly Report

In line with the accelerated national war effort, the 1944 sales volume of the Armstrong Cork Co. rose to \$124,566,258, the highest in the 85-year history of the company, H. W. Prentis, Jr., president, reported in the annual statement sent to the stockholders. Net earnings after taxes were \$4,218,998, equal to 3.4 per cent on the year's sales and approximately 6.7 per cent on the capital invested. Net earnings after taxes in 1943 were \$3,667,026—equivalent to 3.3 per cent on sales of \$111,646,983 in that year.

Before providing for Federal income and excess profits taxes, income in 1944 amounted to \$11,763,658 as against \$7,385,346 the preceding year. Provision for Federal income and excess profits taxes in 1944 amounted to \$7,544,660. Earnings per share of common stock in 1944, on the basis of domestic earnings alone, were \$2.84 as against \$2.45 in 1943. The combined net income of the foreign subsidiaries last year was \$48,113, as against \$29,538 the preceding year. The sum of \$2,328,273 was paid to stockholders in dividends last year. Wages and salaries amounted to \$42,617,255. Federal, state and local taxes paid or accrued during the year are estimated at \$10,156,911, compared to \$5,917,713 the year before.

Australian Wool Stored in United States

Millions of pounds of the finest Australian wool were stored in warehouses throughout the Mid-west two years ago when it was feared that Australia would be invaded, it has been disclosed with the announcement that 2,500,000 pounds, one-half of the amount stored at Creston, Iowa, would be shipped from that point soon. Smaller amounts are stored at Mason City, Iowa; Milwaukee, St. Louis and other cities. The British government had the wool brought to this country.

Veterans Express Their Views On Clothing

Habits of grooming and neatness learned while he was in uniform have made the returned serviceman more particular of his appearance when he dons civilian duds, according to a nation-wide survey conducted by the *American Legion Magazine*. His complete ensemble will emphasize dash and color. He will be more style conscious and will demand better tailoring in his clothes.

Recognizing that veterans will have a positive influence on post-war styles, the magazine sent a questionnaire designed to get an advance picture of what the peacetime civilian will wear, to thousands already back in civilian life. The survey was based on the premise that they faithfully reflect the same tastes as their brother GI's still overseas. Of those who replied, 66.52 per cent were Army, 9.89 per cent were Navy, 2.12 per cent were Marines, and 21.47 per cent were Air Corps.

More than half of those participating in the survey reported they are more concerned with their appearance now than before entering the armed services and agreed service life was responsible. About 62 per cent said they looked for better tailoring in their civvies. A substantial majority, 65.96 per cent, have become more style conscious, and 45.4 per cent put a noticeable emphasis on color. Many also mentioned that they sought wearability, quality and comfort when buying clothes. The returning GI, the Legion found, knows his brand names and trademarks. Fully 72.94 per cent mentioned name brands.

The survey provided a composite picture of what the average ex-GI will wear. He will wear a white shirt, with a button-down collar, and a nine-dollar pair of shoes over cotton socks. He will wear two-piece underwear the year round, preferably cotton shorts and knit shirts. The veterans indicated they will spend an average of \$7 and up to \$15 for a felt hat. In shirts, the informal button-down collar rated higher than the straight collar, and 42.2 per cent preferred the traditional white shirt. As for underwear, nine out of ten said they wanted two-piece underwear summer and winter. Short pajamas in summer were preferred by 45 per cent.

Electronic Resistance Thermometer Announced

Bailey Meter Co., Cleveland 10, Ohio, has published Bulletin No. 230-A featuring Bailey Pyrotron Electronic Resistance Thermometers in indicating, recording and controlling models, for temperature ranges between the limits of minus 100° F. and plus 1,200° F. The 12-page bulletin lists outstanding features; describes the electronic detector and motor control; gives definite information on ranges, power supply required, speed of response, accuracy, sensitivity, installation, standard chart ranges, automatic control application, alarm contacts, temperature sensitive elements, and measuring circuits.

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ABINGTON TEXTILE MACHINERY WORKS, Abingdon, Mass. Offices at Boston, Mass., and Charlotte, N. C.

ACME MACHINE & TOOL CO., 2516 Wilkinson Blvd., Charlotte, N. C.

ACME STEEL CO., 2838 Archer Ave., Chicago, Ill. Sou. Office and Warehouse, 603 Stewart Ave., S.W., Atlanta, Ga.; F. H. Webb, Dist. Mgr. Sou. Sales Reps.: C. A. Carroll, 523 Clairmont Ave., Decatur, Ga.; Phone Dearborn 6267; Marcus M. Brown, 1231 Lexington Ave. (Phone 6583), Charlotte, N. C.; William G. Polley, 937 Cherokee Lane, Signal Mountain, Tenn.; Phone Chattanooga 8-2635; John C. Brill, 309 Magazine St., New Orleans, La.; Phone Magnolia 5859. Warehouses at Atlanta, Ga., Greenville, S. C., New Orleans, La.

AKRON BELTING CO., THE, Akron, O. Sou. Reps.: Ralph Gossett and Wm. J. Moore, 15 Augusta St., Greenville, S. C.; The Akron Belting Co., 406 S. 2nd St., Memphis, Tenn.

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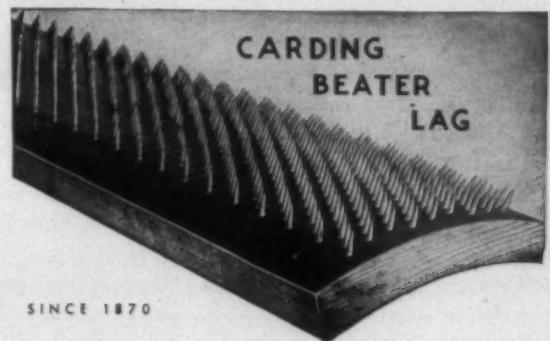
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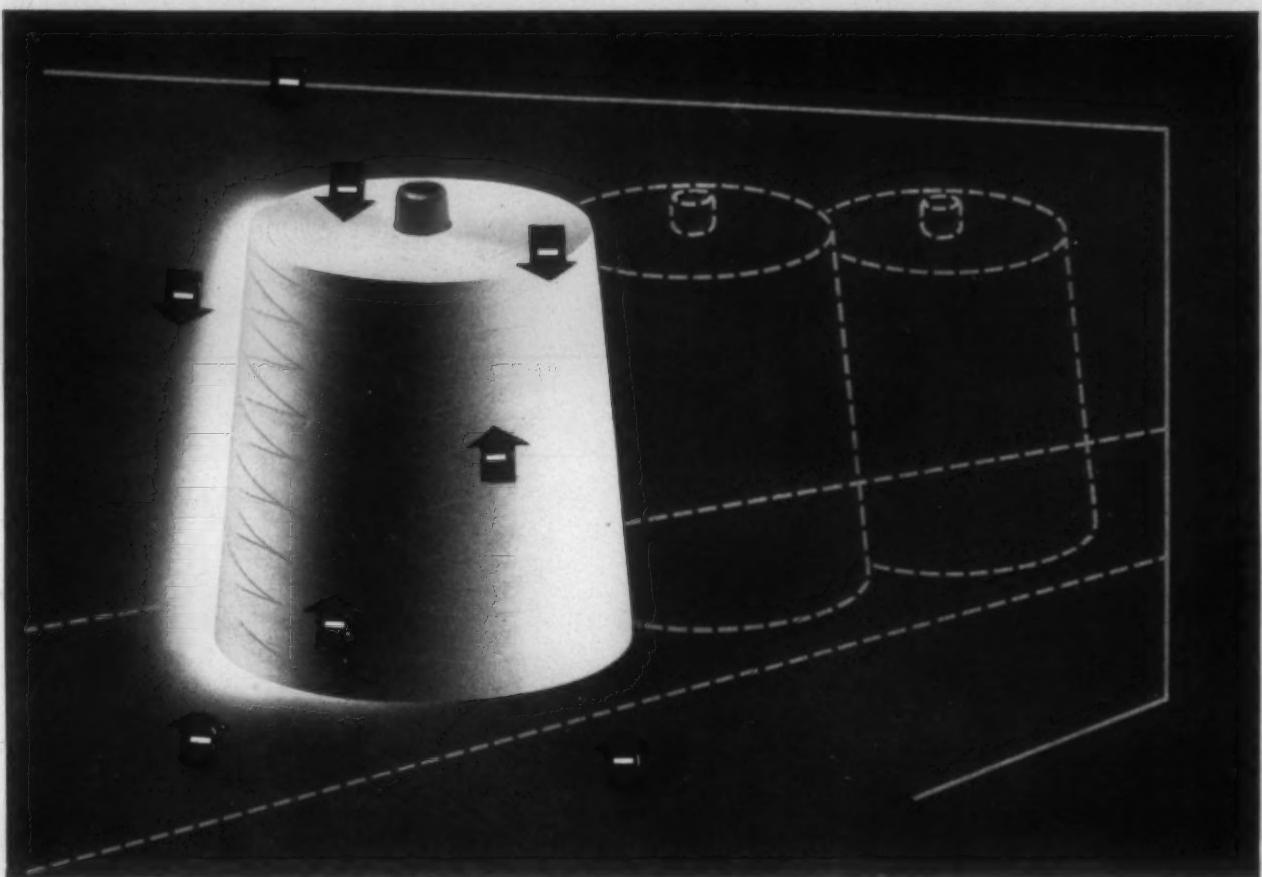
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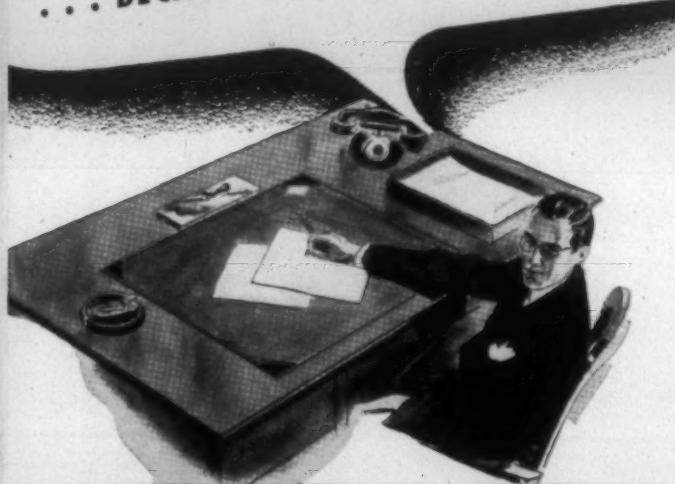
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